**Standards Map for Kindergarten Through Grade Eight**

**Grade 5 – California Next Generation Science Standards**

**5-LS1 From Molecules to Organisms: Structures and Processes**

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **SEP** | **Engaging in Argument from Evidence**  Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s).   * Support an argument with evidence, data, or a model. (5-LS1-1) | **KEY:**  **M = Module**  **DQ = Driving Question**  **L = Lesson**  **TE = Teacher Edition**  **TB = Student Edition known as the Twig Book**  **LR = Leveled Reader**  **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L4 ([TE pp.112-118](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=126), [TB pp.62-68](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=65))  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Associated lessons only  ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136)) | **5-LS1-1.**  **Support an argument that plants get the materials they need for growth chiefly from air and water.** [Clarification Statement: Emphasis is on the idea that plant matter comes mostly from air and water, not from the soil.] | **KEY:**  **M = Module**  **DQ = Driving Question**  **L = Lesson**  **TE = Teacher Edition**  **TB = Student Edition known as the Twig Book**  **LR = Leveled Reader**  **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ1  L1 ([TE pp.6-13](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=20), [TB pp.3-4](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=6))  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=28), [TB pp.5-9](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=8))  L3 ([TE pp.20-27](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=34), [TB pp.10-16](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=13))  Key Resources  L2 **What Plants Need** investigation  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L2 ([TE pp.98-103](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=112), [TB pp.49-52](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=52))  L3 ([TE pp.104-111](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=118), [TB pp.53-61](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=56))  L4 ([TE pp.112-118](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=126), [TB pp.62-68](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=65))  Key Resources  L3 **How Plants Make Food** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ5  L3 ([TE pp.170-177](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=184), [TB pp.104-106](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=107))  Key Resources  L3 **Decomposition** video  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L6 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=190), [TB pp.82-83](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=85))  Key Resources  L6 **Van Helmont** investigation set-up  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Associated lessons only  ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136)) |
| **DCI** | **LS1.C: Organization for Matter and Energy Flow in Organisms**   * Plants acquire their material for growth chiefly from air and water. (5-LS1-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ1  L1 ([TE pp.6-13](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=20), [TB pp.3-4](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=6))  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=28), [TB pp.5-9](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=8))  L3 ([TE pp.20-27](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=34), [TB pp.10-16](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=13))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L1 ([TE pp.92-97](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=106), [TB pp.45-48](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=48))  L3 ([TE pp.104-111](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=118), [TB pp.53-61](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=56))  L4 ([TE pp.112-118](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=126), [TB pp.62-68](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=65))  Key Resources:  L3 **How Plants Make Food** video  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  All chapters ([LR pp.4-32](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=4))  Associated lessons  ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136)) |
| **CCC** | **Energy and Matter**   * Matter is transported into, out of, and within systems. (5-LS1-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ1  L1 ([TE pp.6-13](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=20), [TB pp.3-4](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=6))  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=28), [TB pp.5-9](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=8))  L3 ([TE pp.20-27](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=34), [TB pp.10-16](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=13))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L2 ([TE pp.98-103](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=112), [TB pp.49-52](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=52))  L3 ([TE pp.104-111](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=118), [TB pp.53-61](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=56))  L4 ([TE pp.112-118](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=126), [TB pp.62-68](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=65))  Key Resources:  Throughout: **Matter Flowchart**  L3 **How Plants Make Food** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ5  L3 ([TE pp.170-177](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=184), [TB pp.104-106](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=107))  Key Resources  L3 **Decomposition** video  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  All chapters ([LR pp.4-32](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=4))  Associated lessons ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136)) |

California Department of Education

**5-LS2 Ecosystems: Interactions, Energy, and Dynamics**

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **SEP** | **Developing and Using Models**  Modeling in 3–5 builds on K–2 models and progresses to building and revising simple models and using models to represent events and design solutions.   * Develop a model to describe phenomena. (5-LS2-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ2  L3 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=66), [TB pp.29-30](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=32))  L4 ([TE pp.58-65](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=72), [TB pp.31-32](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=34))  L5 ([TE pp.66-73](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=80), [TB pp. 33-34](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=36))  L6 ([TE pp.74-79](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=88), [TB pp.35-37](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=38))  L7 ([TE pp.80-86](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=94), [TB pp.38-42](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=41))  Key Resources  Throughout: **Matter Flowchart**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L1 ([TE pp.124-129](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=138), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=72))  L2 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=144), [TB pp.71-80](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=74))  L3 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=152), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=84))  L4 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=158), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=87))  Key Resources  L3 **Food Chains** interactive  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ5  L1 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=170), [TB pp.91-94](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=94))  L2 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=176), [TB pp.95-103](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=98))  L3 ([TE pp.170-177](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=184), [TB pp.104-106](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=107))  L4 ([TE pp.178-183](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=192), [TB pp.107-112](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=110))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ6  L1 ([TE pp.194-201](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=208), [TB pp.115-120](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=118))  Key Resources  L1 **Making Changes to an Ecosystem** interactive  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Chapter 2 ([LR pp.16-23](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=16))  Associated lessons ([TE pp.219-225](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=233), [TB p.135](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=138))  **Grade 5 Module 2**  **Benchmark Assessment: From Matter to Organisms**  ([TE pp.184-188](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=198)) | **5-LS2-1.**  **Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.** [Clarification Statement: Emphasis is on the idea that matter that is not food (air, water, decomposed materials in soil) is changed by plants into matter that is food. Examples of systems could include organisms, ecosystems, and the Earth.] [*Assessment Boundary: Assessment does not include molecular explanations*.] | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ2  L1 ([TE pp.36-43](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=50), [TB pp.19-21](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=22))  L2 ([TE pp.44-51](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=58), [TB pp.22-28](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=24))  L3 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=66), [TB pp.29-30](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=32))  L4 ([TE pp.58-65](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=72), [TB pp.31-32](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=34))  L5 ([TE pp.66-73](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=80), [TB pp.33-34](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=36))  L6 ([TE pp.74-79](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=88), [TB pp.35-37](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=38))  L7 ([TE pp.80-86](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=94), [TB pp.38-42](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=41))  Key Resources  Throughout: **Matter Flowchart**  L3 **Carnivores** video  L4 **Herbivores of Yellowstone** video  L5 **Yellowstone Food Web** video  L5 **Butterfly’s Breakfast** video    **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L1 ([TE pp.92-97](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=106), [TB pp.45-48](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=48))  L2 ([TE pp.98-103](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=112), [TB pp.49-52](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=52))  L3 ([TE pp.104-111](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=118), [TB pp.53-61](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=56))  L4 ([TE pp.112-118](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=126), [TB pp.62-68](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=65))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L1 ([TE pp.124-129](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=138), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=72))  L2 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=144), [TB pp.71-80](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=74))  L3 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=152), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=84))  L4 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=158), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=87))  Key Resources  L3 **Food Chains** interactive; **Food Chain** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ5  L1 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=170), [TB pp.91-94](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=94))  L2 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=176), [TB pp.95-103](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=98))  L3 ([TE pp.170-177](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=184), [TB pp.104-106](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=107))  L4 ([TE pp.178-183](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=192), [TB pp.107-112](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=110))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ6  L1 ([TE pp.194-201](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=208), [TB pp.115-120](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=118))  L2 ([TE pp.202-209](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=216), [TB pp.121-132](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=124))  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  All chapters ([LR pp.4-32](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=4))  Associated lessons ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136))  **Grade 5 Module 2**  **Benchmark Assessment: From Matter to Organisms**  ([TE pp.184-188](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=198)) |
| **SEP** | ***Connections to Nature of Science***  **Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena**   * Science explanations describe the mechanisms for natural events. (5-LS2-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ2  L4 ([TE pp.58-65](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=72), [TB pp.31-32](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=34))  L5 ([TE pp.66-73](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=80), [TB pp. 33-34](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=36))  L6 ([TE pp.74-79](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=88), [TB pp.35-37](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=38))  L7 ([TE pp.80-86](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=94), [TB pp.38-42](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=41))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L1 ([TE pp.92-97](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=106), [TB pp.45-48](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=48))  L2 ([TE pp.98-103](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=112), [TB pp.49-52](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=52))  L4 [TE pp.112-118](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=126), [TB pp.62-68](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=65))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L1 ([TE pp.124-129](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=138), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=72))  L2 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=144), [TB pp.71-80](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=74))  L3 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=152), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=84))  L4 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=158), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=87))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ5  L4 ([TE pp.178-183](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=192), [TB pp.107-112](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=110))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ6  L1 ([TE pp.194-201](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=208), [TB pp.115-120](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=118))  L2 ([TE pp.202-209](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=216), [TB pp.121-132](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=124)) |
| **DCI** | **LS2.A: Interdependent Relationships in Ecosystems**   * The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plants parts and animals) and therefore operate as “decomposers.” Decomposition eventually restores (recycles) some materials back to the soil. Organisms can survive only in environments in which their particular needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life. Newly introduced species can damage the balance of an ecosystem. (5-LS2-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ2  L1 ([TE pp.36-43](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=50), [TB pp.19-21](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=22))  L2 ([TE pp.44-51](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=58), [TB pp.22-28](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=24))  L3 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=66), [TB pp.29-30](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=32))  L4 ([TE pp.58-65](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=72), [TB pp.31-32](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=34))  L5 ([TE pp.66-73](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=80), [TB pp.33-34](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=36))  L6 ([TE pp.74-79](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=88), [TB pp.35-37](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=38))  L7 ([TE pp.80-86](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=94), [TB pp.38-42](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=41))  Key Resources  L5 **Butterfly’s Breakfast** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L3 ([TE pp.104-111](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=118), [TB pp.53-61](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=56))  Key Resources  L3 **How Plants Make Food** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L1 ([TE pp.124-129](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=138), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=72))  L2 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=144), [TB pp.71-80](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=74))  L3 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=152), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=84))  L4 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=158), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=87))  Key Resources  L3 **Food Chain** video  L3 **Food Chains** interactive  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ5  L1 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=170), [TB pp.91-94](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=94))  L2 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=176), [TB pp.95-103](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=98))  L3 ([TE pp.170-177](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=184), [TB pp.104-106](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=107))  Key Resources  L3 **Decomposition** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ6  L1 ([TE pp.194-201](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=208), [TB pp.115-120](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=118))  L2 ([TE pp.202-209](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=216), [TB pp.121-132](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=124))  Key Resources  L1 **Cane Toads** video; **Making Changes to an Ecosystem** interactive  L2 **Wolves in Yellowstone** video  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  All chapters ([LR pp.4-32](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=4))  Associated lessons ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136))  **Grade 5 Module 2**  **Benchmark Assessment: From Matter to Organisms**  ([TE pp.184-188](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=198)) |
| **DCI** | **LS2.B: Cycles of Matter and Energy Transfer in Ecosystems**   * Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment. (5-LS2-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ2  L1 ([TE pp.36-43](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=50), [TB pp.19-21](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=22))  L3 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=66), [TB pp.29-30](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=32))  L4 ([TE pp.58-65](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=72), [TB pp.31-32](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=34))  L5 ([TE pp.66-73](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=80), [TB pp. 33-34](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=36))  L6 ([TE pp.74-79](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=88), [TB pp.35-37](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=38))  L7 ([TE pp.80-86](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=94), [TB pp.38-42](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=41))  Key Resources  Throughout: **Matter Flowchart**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L3 ([TE pp.104-111](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=118), [TB pp.53-61](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=56))  L4 ([TE pp.112-118](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=126), [TB pp.62-68](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=65))  Key Resources  L3 **How Plants Make Food** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L1 ([TE pp.124-129](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=138), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=72))  L3 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=152), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=84))  L4 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=158), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=87))  Key Resources  L3 **Food Chain** video; **Food Chains** interactive  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ5  L1 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=170), [TB pp.91-94](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=94))  L2 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=176), [TB pp.95-103](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=98))  L3 ([TE pp.170-177](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=184), [TB pp.104-106](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=107))  L4 ([TE pp.178-183](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=192), [TB pp.107-112](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=110))  Key Resources  L3 **Decomposition** video  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  All chapters ([LR pp.4-32](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=4))  Associated lessons ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136)) |
| **CCC** | **Systems and System Models**   * A system can be described in terms of its components and their interactions. (5-LS2-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ2  L4 ([TE pp.58-65](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=72), [TB pp.31-32](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=34))  L5 ([TE pp.66-73](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=80), [TB pp.33-34](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=36))  L7 ([TE pp.80-86](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=94), [TB pp.38-42](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=41))  Key Resources  Throughout: **Matter Flowchart**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L3 ([TE pp.104-111](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=118), [TB pp.53-61](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=56))  L4 ([TE pp.112-118](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=126), [TB pp.62-68](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=65))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L2 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=144), [TB pp.71-80](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=74))  L4 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=158), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=87))  Key Resources  L3 **Food Chain** video; **Food Chains** interactive  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ5  L1 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=170), [TB pp.91-94](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=94))  L2 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=176), [TB pp.95-103](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=98))  L3 ([TE pp.170-177](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=184), [TB pp.104-106](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=107))  L4 ([TE pp.178-183](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=192), [TB pp.107-112](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=110))  **Grade 5 Module 2**  **Benchmark Assessment: From Matter to Organisms**  ([TE pp.184-188](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=198)) |

**5-ESS1 Earth’s Place in the Universe**

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Engaging in Argument from Evidence**  Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s).   * Support an argument with evidence, data, or a model. (5-ESS1-1) | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ2  L1 ([TE pp.42-47](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=56), [TB pp.21-22](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=24))  L3 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=68), [TB pp.27-36](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=30))  L4 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=76), [TB pp.37-40](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=40))  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ3  L6 ([TE pp.114-119](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=128), [TB pp.72-75](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=75)) | **5-ESS1-1.**  **Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth. [\*\*Clarification Statement: Absolute brightness of stars is the result of a variety of factors. Relative distance from Earth is one factor that affects apparent brightness and is the one selected to be addressed by the performance expectation.]** [*Assessment Boundary: Assessment is limited to relative distances, not sizes, of stars. Assessment does not include other factors that affect apparent brightness (such as stellar masses, age, stage*).] | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ2  L1 ([TE pp.42-47](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=56), [TB pp.21-22](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=24))  L2 ([TE pp.48-53](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=62), [TB pp.23-26](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=26))  L3 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=68), [TB pp.27-36](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=30))  L4 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=76), [TB pp.37-40](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=40))  Key Resources  L1 **Where are the Stars? Model**  L3 **Star Brightness** **Model**  L4 **Brightness of Stars** video  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ3  L1 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=92), [TB pp.43-50](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=46))  L4 ([TE pp.100-105](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=114), [TB pp.66-68](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=69))  L6 ([TE pp.114-119](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=128), [TB pp.72-75](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=75))  Key Resources  L4 **Why Do We Only See Stars at Night?** video  **Grade 5 Module 4**  **Leveled Reader: Looking to the Stars and Beyond**  Chapter 2 ([LR pp.14-21](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=16))  Chapter 3 ([LR pp.22-30](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=24)) |
| **DCI** | **ESS1.A: The Universe and its Stars**   * The sun is a star that appears larger and brighter than other stars because it is closer. Stars range greatly in their distance from Earth. (5-ESS1-1) | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ2  L1 ([TE pp.42-47](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=56), [TB pp.21-22](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=24))  L2 ([TE pp.48-53](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=62), [TB pp.23-26](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=26))  L3 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=68), [TB pp.27-36](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=30))  L4 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=76), [TB pp.37-40](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=40))  Key Resources  L1 **Where are the Stars? Model**  L3 **Star Brightness** **Model**  L4 **Brightness of Stars** video  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ3  L1 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=92), [TB pp.43-50](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=46))  L4 ([TE pp.100-105](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=114), [TB pp.66-68](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=69))  Key Resources  L4 **Why Do We Only See Stars at Night?** video  **Grade 5 Module 4**  **Leveled Reader: Looking to the Stars and Beyond**  All chapters ([LR pp.2-30](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=4)) |
| **CCC** | **Scale, Proportion, and Quantity**   * Natural objects exist from the very small to the immensely large. (5-ESS1-1) | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ2  L1 ([TE pp.42-47](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=56), [TB pp.21-22](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=24))  L2 ([TE pp.48-53](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=62), [TB pp.23-26](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=26))  L3 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=68), [TB pp.27-36](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=30))  L4 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=76), [TB pp.37-40](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=40))  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ3  L1 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=92), [TB pp.43-50](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=46))  **Grade 5 Module 4**  **Leveled Reader: Looking to the Stars and Beyond**  Chapter 2 ([LR pp.14-21](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=16)) |

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Analyzing and Interpreting Data**  Analyzing data in 3–5 builds on K–2 experiences and progresses to introducing quantitative approaches to collecting data and conducting multiple trials of qualitative observations. When possible and feasible, digital tools should be used.   * Represent data in graphical displays (bar graphs, pictographs and/or pie charts) to reveal patterns that indicate relationships. (5-ESS1-2) | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ1  L3 ([TE pp.24-27](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=34), [TB pp.8-12](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=11))  L4 ([TE pp.28-36](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=42), [TB pp.13-18](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=16))  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ3  L2 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=100), [TB pp.51-56](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=54))  L7 ([TE pp.120-126](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=134), [TB pp.76-80](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=79))  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ5  L1 ([TE pp.162-167](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=176), [TB pp.99-102](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=102))  L5 ([TE pp.192-197](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=206), [TB pp.121-122](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=124))  **Grade 5 Module 4**  **Benchmark Assessment: Earth’s Daily and Seasonal Patterns**  ([TE pp.216-219](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=230)) | **5-ESS1-2.**  **Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.** [Clarification Statement: Examples of patterns could include the position and motion of Earth with respect to the sun and selected stars that are visible only in particular months.] [*Assessment Boundary: Assessment does not include causes of seasons*.] | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ1  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=28), [TB pp.6-7](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=9); [pp.131-134](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=134))  L3 ([TE pp.24-27](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=34), [TB pp.8-12](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=11))  L4 ([TE pp.28-36](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=42), [TB pp.13-18](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=16))  Key Resources  L3 **Sunrise Sunset Calculator** interactive  L4 **Stargazer** interactive  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ3  L2 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=100), [TB pp.51-56](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=54))  L5 ([TE pp.106-113](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=120), [TB pp.69-71](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=72))  L7 ([TE pp.120-126](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=134), [TB pp.76-80](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=79))  Key Resources  L2 **Stargazer** interactive  L5 **The Earth in Space** video; **Moon Phases and Moon’s Orbit** video  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ5  L1 ([TE pp.162-167](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=176), [TB pp.99-102](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=102))  L3 ([TE pp.176-183](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=190), [TB pp.113-114](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=116))  L5 ([TE pp.192-197](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=206), [TB pp.121-122](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=124))  L6 ([TE pp.198-203](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=212), [TB pp.123-127](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=126))  L7 ([TE pp.204-208](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=218), [TB p.128](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=131))  L8 ([TE pp.210-215](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=224), [TB pp.129-130](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=132))  Key Resources  L1 **Stargazer** interactive  L5 **Sun and Shadows** video  **Grade 5 Module 4**  **Leveled Reader: Looking to the Stars and Beyond**  Chapter 1 ([LR pp.2-13](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=4))  **Grade 5 Module 4**  **Benchmark Assessment: Earth’s Daily and Seasonal Patterns**  ([TE pp.216-219](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=230))  Key Resources  **Earth’s Motion in the Solar System** video |
| **DCI** | **ESS1.B: Earth and the Solar System**   * The orbits of Earth around the sun and of the moon around Earth, together with the rotation of Earth about an axis between its North and South poles, cause observable patterns. These include day and night; daily changes in the length and direction of shadows; and different positions of the sun, moon, and stars at different times of the day, month, and year. (5-ESS1-2) | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ1  L1 ([TE pp.6-13](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=20), [TB pp.3-5](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=6))  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=28), [TB pp.6-7](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=9); [pp.131-134](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=134))  L3 ([TE pp.24-27](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=34), [TB pp.8-12](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=11))  L4 ([TE pp.28-36](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=42), [TB pp.13-18](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=16))  Key Resources  L3 **Sunrise Sunset Calculator** interactive  L4 **Stargazer** interactive  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ3  L2 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=100), [TB pp.51-56](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=54))  L3 ([TE pp.92-99](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=106), [TB pp.57-65](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=60))  L4 ([TE pp.100-105](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=114), [TB pp.66-68](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=69))  L5 ([TE pp.106-113](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=120), [TB pp.69-71](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=72))  L6 ([TE pp.114-119](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=128), [TB pp.72-75](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=75))  L7 ([TE pp.120-126](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=134), [TB pp.76-80](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=79))  Key Resources  L2 **Stargazer** interactive  L5 **The Earth in Space** video  L5 **Moon Phases and Moon’s Orbit** video  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ5  L2 ([TE pp.168-175](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=182), [TB pp.103-112](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=106))  L3 ([TE pp.176-183](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=190), [TB pp.113-114](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=116))  L4 ([TE pp.184-191](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=198), [TB pp.115-120](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=118))  L5 ([TE pp.192-197](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=206), [TB pp.121-122](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=124))  L6 ([TE pp.198-203](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=212), [TB pp.123-127](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=126))  L7 ([TE pp.204-208](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=218), [TB p.128](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=228))  L8 ([TE pp.210-215](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=224), [TB pp.129-130](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=132))  Key Resources  L1 **Stargazer** interactive  L5 **Sun and Shadows** video  **Grade 5 Module 4**  **Leveled Reader: Looking to the Stars and Beyond**  Chapter 1 ([LR pp.2-13](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=4))  **Grade 5 Module 4**  **Benchmark Assessment: Earth’s Daily and Seasonal Patterns**  ([TE pp.216-219](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=230)) |
| **CCC** | **Patterns**   * Similarities and differences in patterns can be used to sort, classify, communicate and analyze simple rates of change for natural phenomena. (5-ESS1-2) | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ1  L1 ([TE pp.6-13](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=20), [TB pp.3-5](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=6))  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=28), [TB pp.6-7](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=9); [pp.131-134](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=134))  L3 ([TE pp.24-27](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=34), [TB pp.8-12](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=11))  L4 ([TE pp.28-36](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=42), [TB pp.13-18](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=16))  Key Resources  L3 **Sunrise Sunset Calculator** interactive  L4 **Stargazer** interactive  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ3  L2 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=100), [TB pp.51-56](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=54))  L3 ([TE pp.92-99](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=106), [TB pp.57-65](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=60))  L5 ([TE pp.106-113](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=120), [TB pp.69-71](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=72))  L6 ([TE pp.114-119](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=128), [TB pp.72-75](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=75))  L7 ([TE pp.120-126](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=134), [TB pp.76-80](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=79))  Key Resources  L2 **Stargazer** interactive  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ5  L1 ([TE pp.162-167](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=176), [TB pp.99-102](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=102))  L2 ([TE pp.168-175](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=182), [TB pp.103-112](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=106))  L3 ([TE pp.176-183](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=190), [TB pp.113-114](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=116))  L5 ([TE pp.192-197](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=206), [TB pp.121-122](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=124))  L6 ([TE pp.198-203](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=212), [TB pp.123-127](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=126))  L7 ([TE pp.204-208](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=218), [TB p.128](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=131))  L8 ([TE pp.210-215](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=224), [TB pp.129-130](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=132))  Key Resources  L1 **Stargazer** interactive  **Grade 5 Module 4**  **Leveled Reader: Looking to the Stars and Beyond**  All chapters ([LR pp.2-30](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=4))  **Grade 5 Module 4**  **Benchmark Assessment: Earth’s Daily and Seasonal Patterns**  ([TE pp.216-219](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=230)) |

**5-ESS2 Earth’s Systems**

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Developing and Using Models**  Modeling in 3–5 builds on K–2 experiences and progresses to building and revising simple models and using models to represent events and design solutions.   * Develop a model using an example to describe a scientific principle. (5-ESS2-1) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ2  L1 ([TE pp.42-49](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=56), [TB pp.29-31](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=32))  Key Resources  L1 **Watershed** **Model**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ3  L2 ([TE pp.80-87](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=94), [TB pp.55-57](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=58))  L5 ([TE pp.100-107](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=114), [TB pp.66-69](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=69))  L6 ([TE pp.108-113](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=122), [TB pp.70-74](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=73))  Key Resources  L2 **Rain Model**  L5-6 **Rainshadow Model**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ4  L1 ([TE pp.128-133](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=142), [TB pp.81-84](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=84))  L2 ([TE pp.134-139](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=148), [TB pp.85-90](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=88))  L3 ([TE pp.140-145](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=154), [TB pp.91-93](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=94))  L4 ([TE pp.146-149](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=160), [TB pp.94-95](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=97))  L5 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=164), [TB pp.96-97](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=99))  L6 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=170), [TB pp.98-100](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=101))  Key Resources  Throughout: **Ocean Salination Model**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Associated lessons only ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  Associated lessons only ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134)) | **5-ESS2-1.**  **Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.** [Clarification Statement: \*\***The geosphere, hydrosphere (including ice), atmosphere, and biosphere are each a system and each system is a part of the whole Earth System.** Examples could include the influence of the ocean on ecosystems, landform shape, and climate; the influence of the atmosphere on landforms and ecosystems through weather and climate; and the influence of mountain ranges on winds and clouds in the atmosphere. The geosphere, hydrosphere, atmosphere, and biosphere are each a system.] [*Assessment Boundary: Assessment is limited to the interactions of two systems at a time.*] | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ1  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=28), [TB p.6](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=9))  L3 ([TE pp.20-25](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=34), [TB pp.7-15](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=10))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ2  L1 ([TE pp.42-49](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=56), [TB pp.29-31](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=32))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ3  L1 ([TE pp.74-79](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=88), [TB pp.49-54](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=52))  L2 ([TE pp.80-87](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=94), [TB pp.55-57](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=58))  L3 ([TE pp.88-93](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=102), [TB pp.58-62](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=61))  L4 ([TE pp.94-99](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=108), [TB pp.63-65](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=66))  L5 ([TE pp.100-107](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=114), [TB pp.66-69](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=69))  L6 ([TE pp.108-113](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=122), [TB pp.70-74](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=73))  L7 ([TE pp.114-120](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=128), [TB pp.75-78](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=78))  Key Resources  L2 **The Atmosphere** video  L3 **The Geosphere** video  L6 **Where Does the Snow Go?** video  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ4  L1 ([TE pp.128-133](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=142), [TB pp.81-84](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=84))  L2 ([TE pp.134-139](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=148), [TB pp.85-90](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=88))  L3 ([TE pp.140-145](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=154), [TB pp.91-93](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=94))  L4 ([TE pp.146-149](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=160), [TB pp.94-95](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=97))  L5 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=164), [TB pp.96-97](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=99))  L6 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=170), [TB pp.98-100](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=101))  L7 ([TE pp.162-168](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=176), [TB pp.101-106](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=104))  Key Resources  L1 **Pacific Ocean** video  L3 **Why is the Ocean Salty?** video  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  All chapters ([pp.4-32](https://resource.twigscience.com/book.html?id=0054418308ad31e2ecf70&authid=dkiMzUe3nC6F&cid=tsplatform&page=4))  Associated lessons ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134))  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Associated lessons only  ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136)) |
| **DCI** | **ESS2.A: Earth Materials and Systems**   * Earth’s major systems are the geosphere (solid and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). These systems interact in multiple ways to affect Earth’s surface materials and processes. The ocean supports a variety of ecosystems and organisms, shapes landforms, and influences climate. Winds and clouds in the atmosphere interact with the landforms to determine patterns of weather. (5-ESS2-1) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ1  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=28), [TB p.6](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=9))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ2  L1 ([TE pp.42-49](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=56), [TB pp.29-31](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=32))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ3  L1 ([TE pp.74-79](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=88), [TB pp.49-54](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=52))  L2 ([TE pp.80-87](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=94), [TB pp.55-57](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=58))  L3 ([TE pp.88-93](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=102), [TB pp.58-62](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=61))  L4 ([TE pp.94-99](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=108), [TB pp.63-65](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=66))  L5 ([TE pp.100-107](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=114), [TB pp.66-69](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=69))  L6 ([TE pp.108-113](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=122), [TB pp.70-74](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=73))  L7 ([TE pp.114-120](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=128), [TB pp.75-78](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=78))  Key Resources  L2 **The Atmosphere** video  L3 **The Geosphere** video  L6 **Where Does the Snow Go?** video  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ4  L1 ([TE pp.128-133](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=142), [TB pp.81-84](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=84))  L2 ([TE pp.134-139](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=148), [TB pp.85-90](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=88))  L3 ([TE pp.140-145](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=154), [TB pp.91-93](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=94))  L4 ([TE pp.146-149](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=160), [TB pp.94-95](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=97))  L5 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=164), [TB pp.96-97](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=99))  L6 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=170), [TB pp.98-100](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=101))  L7 ([TE pp.162-168](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=176), [TB pp.101-106](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=104))  Key Resources  L1 **Pacific Ocean** video  L3 **Why is the Ocean Salty?** video  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Associated lessons only ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  All chapters ([pp.4-32](https://resource.twigscience.com/book.html?id=0054418308ad31e2ecf70&authid=dkiMzUe3nC6F&cid=tsplatform&page=4))  Associated lessons ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134)) |
| **CCC** | **Systems and System Models**   * A system can be described in terms of its components and their interactions. (5-ESS2-1) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ1  L1 ([TE pp.6-13](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=20), [TB pp.3-5](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=6))  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=28), [TB p.6](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=9))  L4 ([TE pp.26-31](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=40), [TB pp.16-17](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=19))  L5 ([TE pp.32-36](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=46), [TB pp.18-26](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=21))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ2  L1 ([TE pp.42-49](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=56), [TB pp.29-31](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=32))  Key Resources  L1 **Watershed Model**    **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ3  L1 ([TE pp.74-79](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=88), [TB pp.49-54](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=52))  L2 ([TE pp.80-87](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=94), [TB pp.55-57](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=58))  L3 ([TE pp.88-93](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=102), [TB pp.58-62](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=61))  L4 ([TE pp.94-99](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=108), [TB pp.63-65](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=66))  L5 ([TE pp.100-107](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=114), [TB pp.66-69](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=69))  L6 ([TE pp.108-113](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=122), [TB pp.70-74](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=73))  L7 ([TE pp.114-120](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=128), [TB pp.75-78](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=78))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ4  L1 ([TE pp.128-133](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=142), [TB pp.81-84](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=84))  L2 ([TE pp.134-139](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=148), [TB pp.85-90](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=88))  L3 ([TE pp.140-145](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=154), [TB pp.91-93](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=94))  L4 ([TE pp.146-149](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=160), [TB pp.94-95](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=97))  L5 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=164), [TB pp.96-97](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=99))  L6 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=170), [TB pp.98-100](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=101))  L7 ([TE pp.162-168](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=176), [TB pp.101-106](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=104))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  All chapters ([pp.4-32](https://resource.twigscience.com/book.html?id=0054418308ad31e2ecf70&authid=dkiMzUe3nC6F&cid=tsplatform&page=4))  Associated lessons ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134)) 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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **SEP** | **Using Mathematics and Computational Thinking**  Mathematical and computational thinking  in 3–5 builds on K–2 experiences and progresses to extending quantitative measurements to a variety of physical properties and using computation and mathematics to analyze data and compare alternative design solutions.   * Describe and graph quantities such as area and volume to address scientific questions. (5-ESS2-2) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ1  L1 ([TE pp.6-13](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=20), [TB pp.3-5](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=6))  L4 ([TE pp.26-31](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=40), [TB pp.16-17](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=19))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  Associated lessons ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134)) | **5-ESS2-2.**  **Describe and graph the amounts of saltwater and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.** [Assessment Boundary: *Assessment is limited to oceans, lakes, rivers, glaciers, ground water, and polar ice caps, and does not include the atmosphere.]* | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ1  L1 ([TE pp.6-13](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=20), [TB pp.3-5](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=6))  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=28), [TB p.6](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=9))  L4 ([TE pp.26-31](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=40), [TB pp.16-17](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=19))  L5 ([TE pp.32-36](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=46), [TB pp.18-26](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=21))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  Chapter 3 ([LR pp.24-32](https://resource.twigscience.com/book.html?id=0054418308ad31e2ecf70&authid=dkiMzUe3nC6F&cid=tsplatform&page=24))  Associated lessons ([TE pp.230-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=244), [TB p.138](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=141)) |
| **DCI** | **ESS2.C: The Roles of Water in Earth’s Surface Processes**   * Nearly all of Earth’s available water is in the ocean. Most fresh water is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere. (5-ESS2-2) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ1  L1 ([TE pp.6-13](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=20), [TB pp.3-5](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=6))  L2 ([TE pp.14-19](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=28), [TB p.6](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=9))  L4 ([TE pp.26-31](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=40), [TB pp.16-17](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=19))  L5 ([TE pp.32-36](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=46), [TB pp.18-26](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=21))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ4  L3 ([TE pp.140-145](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=154), [TB pp.91-93](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=94))  L4 ([TE pp.146-149](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=160), [TB pp.94-95](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=97))  L5 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=164), [TB pp.96-97](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=99))  L7 ([TE pp.162-168](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=176), [TB pp.101-106](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=104))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  All chapters ([pp.4-32](https://resource.twigscience.com/book.html?id=0054418308ad31e2ecf70&authid=dkiMzUe3nC6F&cid=tsplatform&page=4))  Associated lessons ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134)) |
| **CCC** | **Scale, Proportion, and Quantity**   * Standard units are used to measure and describe physical quantities such as weight and volume. (5-ESS2-2) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ1  L3 ([TE pp.20-25](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=34), [TB pp.7-15](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=10))  L4 ([TE pp.26-31](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=40), [TB pp.16-17](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=19))  L5 ([TE pp.32-36](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=46), [TB pp.18-26](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=21)) |

**5-ESS3 Earth and Human Activity**

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **SEP** | **Obtaining, Evaluating, and Communicating Information**  Obtaining, evaluating, and communicating information in 3–5 builds on K–2 experiences and progresses to evaluating the merit and accuracy of ideas and methods.   * Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem. (5-ESS3-1) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ2  L1 ([TE pp.42-49](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=56), [TB pp.29-31](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=32))  L2 ([TE pp.50-55](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=64), [TB pp.32-41](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=35))  L3 ([TE pp.56-61](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=70), [TB pp.42-44](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=45))  L4 ([TE pp.62-66](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=76), [TB pp.45-46](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=48))  Key Resources  L1 **Water Pollution** video  L2 **Teeny Greeny** video  L3 **Living in the Desert** video | **5-ESS3-1.**  **Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.** | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ2  L1 ([TE pp.42-49](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=56), [TB pp.29-31](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=32))  L2 ([TE pp.50-55](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=64), [TB pp.32-41](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=35))  L3 ([TE pp.56-61](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=70), [TB pp.42-44](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=45))  L4 ([TE pp.62-66](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=76), [TB pp.45-46](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=48))  Key Resources  L1 **Water Pollution** video  L2 **Teeny Greeny** video  L3 **Living in the Desert** video  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L1 ([TE pp.176-183](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=190), [TB pp.109-112](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=112))  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 ([TE pp.202-205](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=216), [TB pp.128-130](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=131))  Key Resources  L1 **California’s Water Shortages** video  L4 **Recycle Your Oil** video  **Grade 5 Module 3**  **Benchmark Assessment: Water Pollution**  ([TE pp.206-213](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=220))  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Chapter 3 ([LR pp.24-32](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=24))  Associated lessons ([TE pp.226-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=240), [TB p.136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=139))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  Associated lessons only  ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134))  **Twig Science Reporter Topical News Reports**  [https://www.twigsciencereporter.com/](https://www.reachoutreporter.com/) |
| **DCI** | **ESS3.C: Human Impacts on Earth Systems**   * Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth’s resources and environments. (5-ESS3-1) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ1  L3 ([TE pp.20-25](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=34), [TB pp.7-15](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=10))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ2  L1 ([TE pp.42-49](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=46), [TB pp.29-31](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=32))  L2 ([TE pp.50-55](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=64), [TB pp.32-41](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=35))  L3 ([TE pp.56-61](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=70), [TB pp.42-44](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=45))  L4 ([TE pp.62-66](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=76), [TB pp.45-46](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=48))  Key Resources  L1 **Water Pollution** video  L2 **Teeny Greeny** video  L3 **Living in the Desert** video  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 ([TE pp.202-205](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=216), [TB pp.128-130](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=131))  Key Resources  L4 **Recycle Your Oil** video  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Chapter 3 ([LR pp.24-32](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=24))  Associated lessons (TE 262-267, TB 142)  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  All chapters ([pp.4-32](https://resource.twigscience.com/book.html?id=0054418308ad31e2ecf70&authid=dkiMzUe3nC6F&cid=tsplatform&page=4))  Associated lessons ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134))  **Twig Science Reporter**  Key Resources  News Update 03/02/2018  News Update 02/01/2018  News Update 12/14/2017  News Update 12/07/2017 |
| **CCC** | **Systems and System Models**   * A system can be described in terms of its components and their interactions. (5-ESS3-1) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ2  L1 ([TE pp.42-49](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=56), [TB pp.29-31](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=32))  L2 ([TE pp.50-55](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=64), [TB pp.32-41](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=35))  L3 ([TE pp.56-61](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=70), [TB pp.42-44](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=45))  L4 ([TE pp.62-66](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=76), [TB pp.45-46](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=48))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 ([TE pp.202-205](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=216), [TB pp.128-130](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=131))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  All chapters ([pp.4-32](https://resource.twigscience.com/book.html?id=0054418308ad31e2ecf70&authid=dkiMzUe3nC6F&cid=tsplatform&page=4))  Associated lessons ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134))  **Grade 5 Module 3**  **Benchmark Assessment: Water Pollution**  ([TE pp.206-213](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=220)) |
| **CCC** | ***Connections to Nature of Science***  **Science Addresses Questions About the Natural and Material World.**   * Science findings are limited to questions that can be answered with empirical evidence. (5-ESS3-1) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ2  L1 ([TE pp.42-49](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=46), [TB pp.29-31](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=32))  L2 ([TE pp.50-55](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=64), [TB pp.32-41](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=35))  L3 ([TE pp.56-61](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=70), [TB pp.42-44](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=45))  L4 ([TE pp.62-66](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=76), [TB pp.45-46](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=48)) |

**5-PS1 Matter and Its Interactions**

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| --- | --- | --- | --- | --- |
| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Developing and Using Models**  Modeling in 3–5 builds on K–2 experiences and progresses to building and revising simple models and using models to represent events and design solutions.   * Develop a model to describe phenomena. (5-PS1-1) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L2 ([TE pp.148-155](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=162), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=72))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L6 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=190), [TB pp.82-83](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=85))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ5  L1 ([TE pp.240-245](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=254), [TB pp.125-132](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=128))  L2 ([TE pp.246-251](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=260), [TB pp.133-135](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=136))  L3 ([TE pp.252-258](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=266), [TB pp.136-140](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=139))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ6  L1 ([TE pp.254-269](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=278), [TB pp.143-146](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=146))  L2 ([TE pp.270-275](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=284), [TB pp.147-149](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=150))  L3 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=290), [TB pp.150-151](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=153))  Key Resources  L1 **Particle Model** video  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  All chapters ([LR pp.2-30](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=4)) | **5-PS1-1.**  **Develop a model to describe that matter is made of particles too small to be seen.** [Clarification Statement: Examples of evidence supporting a model could include adding air to expand a basketball, compressing air in a syringe, dissolving sugar in water, and evaporating salt water.] [*Assessment Boundary: Assessment does not include the atomic-scale mechanism of evaporation and condensation or defining the unseen particles*.] | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L6 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=190), [TB pp.82-83](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=85))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ5  L1 ([TE pp.240-245](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=254), [TB pp.125-132](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=128))  L2 ([TE pp.246-251](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=260), [TB pp.133-135](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=136))  L3 ([TE pp.252-258](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=266), [TB pp.136-140](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=139))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ6  L1 ([TE pp.254-269](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=278), [TB pp.143-146](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=146))  L2 ([TE pp.270-275](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=284), [TB pp.147-149](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=150))  L3 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=290), [TB pp.150-151](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=153))  Key Resources  L1 **Particle Model** video  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 3 ([LR pp.22-30](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=24))  Associated lessons ([TE pp.306-311](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=320), [TB p.158](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=161)) |
| **DCI** | **PS1.A: Structure and Properties of Matter**   * Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means. A model shows that gases are made from matter particles that are too small to see and are moving freely around in space can explain many observations, including the inflation and shape of a balloon and the effects of air on larger particles or objects. (5-PS1-1) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ1  L1 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=66), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=18))  L2 ([TE pp.58-63](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=72), [TB pp.17-18](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=20))  L3 ([TE pp.64-71](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=78), [TB pp.19-20](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=22))  L4 ([TE pp.72-77](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=86), [TB pp.21-22](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=24))  L5 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=92), [TB pp.23-31](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=26))  L6 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=100), [TB pp.32-35](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=35))  L7 ([TE pp.92-98](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=106), [TB pp.36-38](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=39))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L6 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=190), [TB pp.82-83](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=85))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ5  L1 ([TE pp.240-245](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=254), [TB pp.125-132](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=128))  L2 ([TE pp.246-251](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=260), [TB pp.133-135](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=136))  L3 ([TE pp.252-258](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=266), [TB pp.136-140](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=139))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ6  L1 ([TE pp.254-269](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=278), [TB pp.143-146](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=146))  L2 ([TE pp.270-275](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=284), [TB pp.147-149](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=150))  L3 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=290), [TB pp.150-151](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=153))  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 2 ([LR pp.18-21](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=18))  Associated lessons ([TE pp.300-305](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=314), [TB p.157](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=160))  Chapter 3 ([LR pp.22-30](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=24))  Associated lessons ([TE pp.306-311](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=320), [TB p.158](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=161)) |
| **CCC** | **Scale, Proportion, and Quantity**   * Natural objects exist from the very small to the immensely large. (5-PS1-1) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ1  L1 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=66), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=18))  L2 ([TE pp.58-63](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=72), [TB pp.17-18](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=20))  L3 ([TE pp.64-71](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=78), [TB pp.19-20](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=22))  L4 ([TE pp.72-77](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=86), [TB pp.21-22](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=24))  L6 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=100), [TB pp.32-35](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=35))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L2 ([TE pp.148-155](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=162), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=72))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L6 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=190), [TB pp.82-83](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=85))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ5  L1 ([TE pp.240-245](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=254), [TB pp.125-132](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=128))  L2 ([TE pp.246-251](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=260), [TB pp.133-135](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=136))  L3 ([TE pp.252-258](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=266), [TB pp.136-140](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=139))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ6  L1 ([TE pp.254-269](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=278), [TB pp.143-146](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=146))  L2 ([TE pp.270-275](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=284), [TB pp.147-149](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=150))  L3 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=290), [TB pp.150-151](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=153)) |

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Using Mathematics and Computational Thinking**  Mathematical and computational thinking in 3–5 builds on K–2 experiences and progresses to extending quantitative measurements to a variety of physical properties and using computation and mathematics to analyze data and compare alternative design solutions.   * Measure and graph quantities such as weight to address scientific and engineering questions and problems. (5-PS1-2) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L2 ([TE pp.148-155](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=162), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=72))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  Key Resources  L1 **Making Banana Bread** activity  L3 **Making Lava Lamps** activity  L4 **Investigating Changes** activity  **Grade 5 Module 1**  **Benchmark Assessment: What is Matter Made of?**  ([TE pp.288-292](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=302))  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Associated lessons only  ([TE pp.294-311](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=308), [TB pp.155-158](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=158)) | **5-PS1-2.**  **Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.** [Clarification Statement: Examples of reactions or changes could include phase changes, dissolving, and mixing that forms new substances.] [*Assessment Boundary: Assessment does not include distinguishing mass and weight.]* | **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L2 ([TE pp.148-155](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=162), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=72))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L7 ([TE pp.182-187](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=196), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=87))  Key Resources  L1 **Making Banana Bread** activity  L3 **Making Lava Lamps** activity  L4 **Investigating Changes** activity  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 1 ([LR pp.2-15](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=4))  Associated lessons ([TE pp.294-295](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=308), [TB pp.155-156](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=158))  Chapter 2 ([LR pp.18-21](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=18))  Associated lessons ([TE pp.300-305](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=314), [TB p.157](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=160))  **Grade 5 Module 1**  **Benchmark Assessment: What is Matter Made of?**  ([TE pp.288-292](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=302)) |
| **DCI** | **PS1.A: Structure and Properties of Matter**   * The amount (weight) of matter is conserved when it changes form, even in transitions in which it seems to vanish. (5-PS1-2) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L2 ([TE pp.148-155](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=162), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=72))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  Key Resources  L1 **Making Banana Bread** activity  L2 **Making Lava Lamps** activity  L4 **Investigating Changes** activity  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 2 ([LR pp.18-21](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=18))  Chapter 3 ([LR pp.22-30](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=24))  **Grade 5 Module 1**  **Benchmark Assessment: What is Matter Made of?**  ([TE pp.288-292](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=302)) |
| **DCI** | **PS1.B: Chemical Reactions**   * No matter what reaction or change in properties occurs, the total weight of the substances does not change. (Boundary: Mass and weight are not distinguished at this grade level.) (5-PS1-2) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L2 ([TE pp.148-155](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=162), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=72))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  Key Resources  L1 **Making Banana Bread** activity  L2 **Making Lava Lamps** activity  L4 **Investigating Changes** activity  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 1 ([LR pp.2-15](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=4))  Chapter 2 ([LR pp.18-21](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=18))  **Grade 5 Module 1**  **Benchmark Assessment: What is Matter Made of?**  ([TE pp.288-292](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=302)) |
| **CCC** | **Scale, Proportion, and Quantity**   * Standard units are used to measure and describe physical quantities such as weight, time, temperature, and volume. (5-PS1-2) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L2 ([TE pp.148-155](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=162), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=72))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L6 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=190), [TB pp.82-83](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=85))  **Grade 5 Module 1**  **Benchmark Assessment: What is Matter Made of?**  ([TE pp.288-292](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=302)) |
| **CCC** | ***Connections to Nature of Science***  **Scientific Knowledge Assumes an Order and Consistency in Natural Systems**   * Science assumes consistent patterns in natural systems. (5-PS1-2) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ2  L5 ([TE pp.130-134](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=144), [TB pp.55-62](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=58))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L7 ([TE pp.182-187](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=196), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=87))  L8 ([TE pp.188-194](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=202), [TB pp.89-96](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=92)) |

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Planning and Carrying Out Investigations**  Planning and carrying out investigations to answer questions or test solutions to problems in 3–5 builds on K–2 experiences and progresses to include investigations that control variables and provide evidence to support explanations or design solutions.   * Make observations and measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon. (5-PS1-3) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ1  L1 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=66), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=18))  L3 ([TE pp.64-71](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=78), [TB pp.19-20](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=22))  L4 ([TE pp.72-77](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=86), [TB pp.21-22](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=24))  L5 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=92), [TB pp.23-31](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=26))  L6 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=100), [TB pp.32-35](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=35))  L7 ([TE pp.92-98](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=106), [TB pp.36-38](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=39))  Key Resources  L1-4 **Investigating Mystery Materials** activity  L6-7 **Design a Bag** activity  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ2  L1 ([TE pp.104-109](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=118), [TB pp.41-43](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=44))  L2 ([TE pp.110-115](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=124), [TB pp.44-48](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=47))  L3 ([TE pp.116-121](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=130), [TB pp.49-50](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=52))  L4 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=136), [TB pp.51-54](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=54))  Key Resources  Throughout: **Investigating Mystery Substances and Mixtures** activities    **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ5  L2 ([TE pp.246-251](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=260), [TB pp.133-135](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=136))  L3 ([TE pp.252-258](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=266), [TB pp.136-140](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=139))  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 2 ([LR pp.18-21](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=18)) | **5-PS1-3.**  **Make observations and measurements to identify materials based on their properties.** [Clarification Statement: Examples of materials to be identified could include baking soda and other powders, metals, minerals, and liquids. Examples of properties could include color, hardness, reflectivity, electrical conductivity, thermal conductivity, response to magnetic forces, and solubility; density is not intended as an identifiable property.] [*Assessment Boundary: Assessment does not include density or distinguishing mass and weight.*] | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ1  L1 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=66), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=18))  L2 ([TE pp.58-63](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=72), [TB pp.17-18](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=20))  L3 ([TE pp.64-71](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=78), [TB pp.19-20](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=22))  L4 ([TE pp.72-77](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=86), [TB pp.21-22](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=24))  L5 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=92), [TB pp.23-31](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=26))  L6 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=100), [TB pp.32-35](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=35))  L7 ([TE pp.92-98](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=106), [TB pp.36-38](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=39))  Key Resources  L1-4 **Investigating Mystery Materials** activity  L6-7 **Design a Bag** activity  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ2  L1 ([TE pp.104-109](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=118), [TB pp.41-43](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=44))  L2 ([TE pp.110-115](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=124), [TB pp.44-48](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=47))  L3 ([TE pp.116-121](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=130), [TB pp.49-50](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=52))  L4 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=136), [TB pp.51-54](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=54))  L5 ([TE pp.130-134](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=144), [TB pp.55-62](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=58))  Key Resources  Throughout: **Investigating Mystery Substances and Mixtures** activities  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ5  L2 ([TE pp.246-251](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=260), [TB pp.133-135](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=136))  L3 ([TE pp.252-258](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=266), [TB pp.136-140](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=139)) |
| **DCI** | **PS1.A: Structure and Properties of Matter**   * Measurements of a variety of properties can be used to identify materials. (Boundary: At this grade level, mass and weight are not distinguished, and no attempt is made to define the unseen particles or explain the atomic-scale mechanism of evaporation and condensation.) (5-PS1-3) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ1  L1 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=66), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=18))  L2 ([TE pp.58-63](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=72), [TB pp.17-18](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=20))  L3 ([TE pp.64-71](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=78), [TB pp.19-20](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=22))  L4 ([TE pp.72-77](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=86), [TB pp.21-22](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=24))  Key Resources  L1-4 **Investigating Mystery Materials** activity  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ2  L1 ([TE pp.104-109](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=118), [TB pp.41-43](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=44))  L2 ([TE pp.110-115](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=124), [TB pp.44-48](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=47))  L3 ([TE pp.116-121](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=130), [TB pp.49-50](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=52))  L4 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=136), [TB pp.51-54](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=54))  L5 ([TE pp.130-134](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=144), [TB pp.55-62](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=58))  Key Resources  Throughout: **Investigating Mystery Substances and Mixtures** activities  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ5  L2 ([TE pp.246-251](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=260), [TB pp.133-135](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=136))  L3 ([TE pp.252-258](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=266), [TB pp.136-140](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=139))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ6  L1 ([TE pp.254-269](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=278), [TB pp.143-146](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=146))  L2 ([TE pp.270-275](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=284), [TB pp.147-149](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=150))  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 2 ([LR pp.18-21](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=18))  Chapter 3 ([LR pp.22-30](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=24)) |
| **CCC** | **Scale, Proportion, and Quantity**   * Standard units are used to measure and describe physical quantities such as weight, time, temperature, and volume. (5-PS1-3) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ1  L1 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=66), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=18))  L2 ([TE pp.58-63](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=72), [TB pp.17-18](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=20))  L3 ([TE pp.64-71](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=78), [TB pp.19-20](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=22))  L4 ([TE pp.72-77](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=86), [TB pp.21-22](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=24))  L6 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=100), [TB pp.32-35](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=35))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ2  L1 ([TE pp.104-109](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=118), [TB pp.41-43](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=44))  L2 ([TE pp.110-115](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=124), [TB pp.44-48](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=47))  L3 ([TE pp.116-121](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=130), [TB pp.49-50](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=52))  L4 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=136), [TB pp.51-54](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=54))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ5  L2 ([TE pp.246-251](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=260), [TB pp.133-135](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=136))  L3 ([TE pp.252-258](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=266), [TB pp.136-140](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=139))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ6  L1 ([TE pp.254-269](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=278), [TB pp.143-146](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=146))  L2 ([TE pp.270-275](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=284), [TB pp.147-149](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=150))  L3 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=290), [TB pp.150-151](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=153)) |

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|
| **SEP** | **Planning and Carrying Out Investigations**  Planning and carrying out investigations to answer questions or test solutions to problems in 3–5 builds on K–2 experiences and progresses to include investigations that control variables and provide evidence to support explanations or design solutions.   * Conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered. (5-PS1-4) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ2  L2 ([TE pp.110-115](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=124), [TB pp.44-48](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=47))  L4 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=136), [TB pp.51-54](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=54))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L6 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=190), [TB pp.82-83](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=85))  Key Resources:  L1 **Making Banana Bread** activity  L4 **Investigating Changes** activity  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ4  L1 ([TE pp.200-205](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=214), [TB pp.99-102](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=102))  L3 ([TE pp.212-217](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=226), [TB pp.107-113](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=110))  L4 ([TE pp.218-221](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=232), [TB pp.114-115](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=117))  L5 ([TE pp.222-227](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=236), [TB pp.116-118](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=119))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ5  L3 ([TE pp.252-258](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=266), [TB pp.136-140](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=139))  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 2 ([LR pp.18-21](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=18))  Associated lessons ([TE pp.300-305](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=314), [TB p.157](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=160)) | **5-PS1-4.**  **Conduct an investigation to determine whether the mixing of two or more substances results in new substances. [\*\*Clarification Statement: Examples of combinations that do not produce new substances could include sand and water. Examples of combinations that do produce new substances could include baking soda and vinegar or milk and vinegar.]** | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ2  L2 ([TE pp.110-115](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=124), [TB pp.44-48](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=47))  L4 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=136), [TB pp.51-54](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=54))  Key Resources  Throughout: **Investigating Mystery Substances and Mixtures** activities  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L2 ([TE pp.148-155](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=162), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=72))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L6 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=190), [TB pp.82-83](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=85))  L7 ([TE pp.182-187](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=196), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=87))  L8 ([TE pp.188-194](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=202), [TB pp.89-96](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=92))  Key Resources:  L1 **Making Banana Bread** activity  L3 **Making Lava Lamps** activity  L4 **Investigating Changes** activity; **Chemical Reactions** video  L6 **Changing Properties** video  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ4  L1 ([TE pp.200-205](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=214), [TB pp.99-102](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=102))  L3 ([TE pp.212-217](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=226), [TB pp.107-113](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=110))  L4 ([TE pp.218-221](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=232), [TB pp.114-115](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=117))  L5 ([TE pp.222-227](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=236), [TB pp.116-118](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=119))  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 2 ([LR pp.18-21](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=18))  Associated lessons ([TE pp.300-305](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=314), [TB p.157](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=160)) |
| **DCI** | **PS1.B: Chemical Reactions**   * When two or more different substances are mixed, a new substance with different properties may be formed. (5-PS1-4) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ2  L2 ([TE pp.110-115](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=124), [TB pp.44-48](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=47))  L3 ([TE pp.116-121](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=130), [TB pp.49-50](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=52))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68)8)  L2 ([TE pp.148-155](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=162), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=72))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L4 ([TE pp.162-169](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=176), [TB pp.74-77](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=77))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L6 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=190), [TB pp.82-83](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=85))  L7 ([TE pp.182-187](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=196), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=87))  L8 ([TE pp.188-194](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=202), [TB pp.89-96](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=92))  Key Resources  L4 **Chemical Reactions** video  L6 **Changing Properties** video  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ4  L1 ([TE pp.200-205](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=214), [TB pp.99-102](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=102))  L3 ([TE pp.212-217](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=226), [TB pp.107-113](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=110))  L4 ([TE pp.218-221](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=232), [TB pp.114-115](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=117))  L5 ([TE pp.222-227](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=236), [TB pp.116-118](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=119))  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 1 ([LR pp.2-15](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=4))  Associated lessons ([TE pp.294-295](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=308), [TB pp.155-156](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=158))  Chapter 2 ([LR pp.18-21](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=18))  Associated lessons ([TE pp.300-305](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=314), [TB p.157](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=160)) |
| **CCC** | **Cause and Effect**   * Cause and effect relationships are routinely identified, tested, and used to explain change. (5-PS1-4) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ2  L2 ([TE pp.110-115](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=124), [TB pp.44-48](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=47))  L3 ([TE pp.116-121](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=130), [TB pp.49-50](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=52))  L4 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=136), [TB pp.51-54](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=54))  L5 ([TE pp.130-134](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=144), [TB pp.55-62](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=58))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ3  L1 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=156), [TB pp.65-68](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=68))  L2 ([TE pp.148-155](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=162), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=72))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=170), [TB pp.71-73](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=74))  L5 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=184), [TB pp.78-81](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=81))  L6 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=190), [TB pp.82-83](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=85))  L7 ([TE pp.182-187](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=196), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=87))  L8 ([TE pp.188-194](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=202), [TB pp.89-96](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=92))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ4  L1 ([TE pp.200-205](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=214), [TB pp.99-102](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=102))  L3 ([TE pp.212-217](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=226), [TB pp.107-113](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=110))  L4 ([TE pp.218-221](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=232), [TB pp.114-115](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=117))  L5 ([TE pp.222-227](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=236), [TB pp.116-118](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=119))  L6 ([TE pp.228-234](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=242), [TB pp.119-122](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=122))  **Grade 5 Module 1**  **Leveled Reader: Absolute Zero**  Chapter 1 ([LR pp.2-15](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=4))  Associated lessons ([TE pp.294-295](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=308), [TB pp.155-156](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=158))  Chapter 3 ([LR pp.22-30](https://resource.twigscience.com/book.html?id=005441830f697b90a0ad9&authid=YKsn1Uhnyoiz&cid=tsplatform&page=24))  Associated lessons ([TE pp.306-311](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=320), [TB p.158](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=161)) |

**5-PS2 Motion and Stability: Forces and Interactions**

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **SEP** | **Engaging in Argument from Evidence**  Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s).   * Support an argument with evidence, data, or a model. (5-PS2-1) | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ4  L1 ([TE pp.132-139](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=146), [TB pp.83-85](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=86))  L2 ([TE pp.140-147](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=154), [TB pp.86-91](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=89))  L3 ([TE pp.148-154](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=162), [TB pp.92-96](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=95))  **Grade 5 Module 4**  **Leveled Reader: Looking to the Stars and Beyond**  Chapter 1 ([LR pp.2-13](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=4))  Associated lessons ([TE pp.222-225](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=236), [TB pp.135-136](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=138)) | **5-PS2-1**  **Support an argument that the gravitational force exerted by Earth on objects is directed down.** [Clarification Statement: “Down” is a local description of the direction that points toward the center of the spherical Earth.] [*Assessment Boundary: Assessment does not include mathematical representation of gravitational force*.] | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ4  L1 ([TE pp.132-139](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=146), [TB pp.83-85](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=86))  L2 ([TE pp.140-147](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=154), [TB pp.86-91](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=89))  L3 ([TE pp.148-154](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=162), [TB pp.92-96](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=95))  Key Resources  L2 **Gravity** investigation  L3 **Gravity** video  **Grade 5 Module 4**  **Leveled Reader: Looking to the Stars and Beyond**  Chapter 1 ([LR pp.2-13](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=4))  Associated lessons ([TE pp.222-225](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=236), [TB pp.135-136](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=138))  Chapter 3 ([LR pp.22-30](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=24))  Associated lessons ([TE pp.232-237](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=246), [TB p.138](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=140)) |
| **DCI** | **PS2.B: Types of Interactions**   * The gravitational force of Earth acting on an object near Earth’s surface pulls that object toward the planet’s center. (5-PS2-1) | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ4  L1 ([TE pp.132-139](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=146), [TB pp.83-85](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=86))  L2 ([TE pp.140-147](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=154), [TB pp.86-91](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=89))  L3 ([TE pp.148-154](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=162), [TB pp.92-96](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=95))  Key Resources  L3 **Gravity** video  **Grade 5 Module 4**  **Leveled Reader: Looking to the Stars and Beyond**  Chapter 1 ([LR pp.2-13](https://resource.twigscience.com/book.html?id=005441830aa832c0064c6&authid=rNgPALqh45If&cid=tsplatform&page=4))  Associated lessons ([TE pp.222-225](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=236), [TB pp.135-136](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=138)) |
| **CCC** | **Cause and Effect**   * Cause and effect relationships are routinely identified and used to explain change. (5-PS2-1) | **EXAMPLES**  **Grade 5 Module 4**  **Galactic Guidebook**  M4\_DQ4  L1 ([TE pp.132-139](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=146), [TB pp.83-85](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=86))  L2 ([TE pp.140-147](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=154), [TB pp.86-91](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=89))  L3 ([TE pp.148-154](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=162), [TB pp.92-96](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=95))  **Grade 5 Module 4**  **Leveled Reader: Looking to the Stars and Beyond**  Associated lessons only  ([TE pp.222-237](https://resource.twigscience.com/book.html?id=0054418307e24b0d58097&authid=mWsMGHocUXsK&cid=tsplatform&page=236), [TB pp.135-138](https://resource.twigscience.com/book.html?id=00544183086ea80a9d01d&authid=ovp1ucP2EUW8&cid=tsplatform&page=138)) |

**5-PS3 Energy**

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **SEP** | **Developing and Using Models**  Modeling in 3–5 builds on K–2 experiences and progresses to building and revising simple models and using models to represent events and design solutions.   * Use models to describe phenomena. (5-PS3-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ2  L5 ([TE pp.66-73](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=80), [TB pp. 33-34](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=36))  Key Resources  L5 **Butterfly’s Breakfast** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L1 ([TE pp.124-129](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=138), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=72))  L2 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=144), [TB pp.71-80](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=74))  L3 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=152), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=84))  L4 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=158), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=87))  Key Resources  Throughout: **Matter and Energy Flowchart**  L3 **Food Chain** video; **Food Chains** interactive  **Grade 5 Module 2**  **Benchmark Assessment: From Matter to Organisms**  ([TE pp.184-188](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=198))  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Associated lessons only  ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136)) | **5-PS3-1.**  **Use models to describe that energy in animals’ food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.** [Clarification Statement:Examples of models could include diagrams, and flow charts.] | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ2  L5 ([TE pp.66-73](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=80), [TB pp.33-34](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=36))  Key Resources  L5 **Butterfly’s Breakfast** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L3 ([TE pp.104-111](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=118), [TB pp.53-61](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=56))  Key Resources  L3 **How Plants Make Food** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L1 ([TE pp.124-129](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=138), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=72))  L2 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=144), [TB pp.71-80](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=74))  L3 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=152), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=84))  L4 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=158), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=87))  Key Resources  Throughout: **Matter and Energy Flowchart**  L3 **Food Chain** video  L3 **Food Chains** interactive  **Grade 5 Module 2**  **Benchmark Assessment: From Matter to Organisms**  ([TE pp.184-188](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=198))  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Associated lessons only  ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136)) |
| **DCI** | **PS3.D: Energy in Chemical Processes and Everyday Life**   * The energy released [from] food was once energy from the sun that was captured by plants in the chemical process that forms plant matter (from air and water). (5-PS3-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L3 ([TE pp.104-111](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=118), [TB pp.53-61](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=56))  Key Resources  L3 **How Plants Make Food** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L2 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=144), [TB pp.71-80](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=74))  L3 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=152), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=84))  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Chapter 2 ([LR pp.16-23](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=16))  Associated lessons ([TE pp.219-225](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=233), [TB p.135](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=138))  Chapter 3 ([LR pp.24-32](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=24))  Associated lessons ([TE pp.226-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=240), [TB p.136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=139))  **Grade 5 Module 2**  **Benchmark Assessment: From Matter to Organisms**  ([TE pp.184-188](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=198)) |
| **DCI** | **LS1.C: Organization for Matter and Energy Flow in Organisms**   * Food provides animals with the materials they need for body repair and growth and the energy they need to maintain body warmth and for motion.(secondary to 5-PS3-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ2  L1 ([TE pp.36-43](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=50), [TB pp.19-21](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=22))  L3 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=66), [TB pp.29-30](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=32))  L4 ([TE pp.58-65](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=72), [TB pp.31-32](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=34))  L5 ([TE pp.66-73](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=80), [TB pp. 33-34](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=36))  L6 ([TE pp.74-79](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=88), [TB pp.35-37](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=38))  L7 ([TE pp.80-86](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=94), [TB pp.38-42](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=41))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L2 ([TE pp.98-103](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=112), [TB pp.49-52](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=52))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L1 ([TE pp.124-129](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=138), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=72))  L2 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=144), [TB pp.71-80](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=74))  L3 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=152), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=84))  L4 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=158), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=87))  Key Resources  Throughout: **Matter and Energy Flowchart**  L3 **Food Chain** video; **Food Chains** interactive  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  All chapters ([LR pp.4-32](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=4))  Associated lessons ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136)) |
| **CCC** | **Energy and Matter**   * Energy can be transferred in various ways and between objects. (5-PS3-1) | **EXAMPLES**  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ2  L5 ([TE pp.66-73](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=80), [TB pp.33-34](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=36))  Key Resources  L5 **Butterfly’s Breakfast** video  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ3  L3 ([TE pp.104-111](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=118), [TB pp.53-61](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=56))  **Grade 5 Module 2**  **Yellowstone Uncovered**  M2\_DQ4  L1 ([TE pp.124-129](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=138), [TB pp.69-70](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=72))  L2 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=144), [TB pp.71-80](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=74))  L3 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=152), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=84))  L4 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=158), [TB pp.84-88](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=87))  Key Resources  Throughout: **Matter and Energy Flowchart**  L3 **Food Chain** video; **Food Chains** interactive  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  All chapters ([LR pp.4-32](https://resource.twigscience.com/book.html?id=00544183011c5f1b6e5ef&authid=ZMhXzynN4YmE&cid=tsplatform&page=4))  Associated lessons ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136))  **Grade 5 Module 2**  **Benchmark Assessment: From Matter to Organisms**  ([TE pp.184-188](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=198)) |

**3–5-ETS1 Engineering Design**

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| --- | --- | --- | --- | --- |
| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Asking Questions and Defining Problems**  Asking questions and defining problems in 3–5 builds on grades K–2 experiences and progresses to specifying qualitative relationships.   * Define a simple design problem that can be solved through the development of an object, tool, process, or system and includes several criteria for success and constraints on materials, time, or cost. (3–5-ETS1-1) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L1 ([TE pp.176-183](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=190), [TB pp.109-112](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=112))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  **Grade 5 Module 3**  **Benchmark Assessment: Water Pollution**  ([TE pp.206-213](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=220)) | **3–5-ETS1-1.**  **Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.** | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ2  L1 ([TE pp.42-49](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=56), [TB pp.29-311](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=32))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L1 ([TE pp.176-183](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=190), [TB pp.109-112](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=112))  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 ([TE pp.202-205](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=216), [TB pp.128-130](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=131))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  Associated lessons only  ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134))  **Grade 5 Module 3**  **Benchmark Assessment: Water Pollution**  ([TE pp.206-213](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=220)) |
| **DCI** | **ETS1.A: Defining and Delimiting Engineering Problems**   * Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. (3–5-ETS1-1) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L1 ([TE pp.176-183](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=190), [TB pp.109-112](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=112))  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 ([TE pp.202-205](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=216), [TB pp.128-130](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=131)) |
| **CCC** | **Influence of Engineering, Technology, and Science on Society and the Natural World**   * People’s needs and wants change over time, as do their demands for new and improved technologies. (3–5-ETS1-1) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 ([TE pp.202-205](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=216), [TB pp.128-130](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=131)) |

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **SEP** | **Constructing Explanations and Designing Solutions**  Constructing explanations and designing solutions in 3–5 builds on K–2 experiences and progresses to the use of evidence in constructing explanations that specify variables that describe and predict phenomena and in designing multiple solutions to design problems.   * Generate and compare multiple solutions to a problem based on how well they meet the criteria and constraints of the design problem. (3–5-ETS1-2) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L1 ([TE pp.176-183](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=190), [TB pp.109-112](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=112))  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 ([TE pp.202-205](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=216), [TB pp.128-130](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=131))  **Grade 5 Module 2**  **Leveled Reader: The Galápagos Islands**  Associated lessons only  ([TE pp.212-231](https://resource.twigscience.com/book.html?id=005441830332b8f866fc7&authid=wmcQNMYjhGM8&cid=tsplatform&page=226), [TB pp.133-136](https://resource.twigscience.com/book.html?id=005441830d06dbc534b38&authid=gb42zC11RAba&cid=tsplatform&page=136))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  Associated lessons only  ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134)) | **3–5-ETS1-2.**  **Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.** | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 ([TE pp.202-205](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=216), [TB pp.128-130](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=131))  **Grade 5 Module 3**  **Benchmark Assessment: Water Pollution**  ([TE pp.206-213](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=220))  **Grade 5 Module 3**  **Leveled Reader: Where’s the Water?**  Associated lessons only  ([TE pp.216-235](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=230), [TB pp.131-134](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=134)) |
| **DCI** | **ETS1.B: Developing Possible Solutions**   * Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. (3–5-ETS1-2) * At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. (3–5-ETS1-2) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L1 ([TE pp.176-183](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=190), [TB pp.109-112](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=112))  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 ([TE pp.202-205](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=216), [TB pp.128-130](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=131))  **Grade 5 Module 3**  **Benchmark Assessment: Water Pollution**  ([TE pp.206-213](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=220)) |
| **CCC** | **Influence of Engineering, Technology, and Science on Society and the Natural World**   * Engineers improve existing technologies or develop new ones to increase their benefits, decrease known risks, and meet societal demands. (3–5-ETS1-2) | **EXAMPLES**  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 (TE 238-243, TB 130-132) |

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Planning and Carrying Out Investigations**  Planning and carrying out investigations to answer questions or test solutions to problems in 3–5 builds on K–2 experiences and progresses to include investigations that control variables and provide evidence to support explanations or design solutions.   * Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered. (3–5-ETS1-3) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ1  L1 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=66), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=18))  L3 ([TE pp.64-71](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=78), [TB pp.19-20](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=22))  L4 ([TE pp.72-77](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=86), [TB pp.21-22](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=24))  L5 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=92), [TB pp.23-31](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=26))  L6 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=100), [TB pp.32-35](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=35))  L7 ([TE pp.92-98](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=106), [TB pp.36-38](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=39))  Key Resources  L6-7 **Design a Bag** activity  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ4  L1 ([TE pp.200-205](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=214), [TB pp.99-102](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=102))  L3 ([TE pp.212-217](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=226), [TB pp.107-113](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=110))  L4 ([TE pp.218-221](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=232), [TB pp.114-115](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=117))  L5 ([TE pp.222-227](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=236), [TB pp.116-118](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=119))  Key Resources  L1-5 **Designing Clay** activity  **Grade 5 Module 3**  **Benchmark Assessment: Water Pollution**  ([TE pp.206-213](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=220)) | **3–5-ETS1-3.**  **Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.** | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ1  L1 ([TE pp.52-57](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=66), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=18))  L2 ([TE pp.58-63](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=72), [TB pp.17-18](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=20))  L3 ([TE pp.64-71](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=78), [TB pp.19-20](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=22))  L4 ([TE pp.72-77](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=86), [TB pp.21-22](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=24))  L5 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=92), [TB pp.23-31](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=26))  L6 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=100), [TB pp.32-35](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=35))  L7 ([TE pp.92-98](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=106), [TB pp.36-38](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=39))  Key Resources  L6-7 **Design a Bag** activity  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ4  L1 ([TE pp.200-205](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=214), [TB pp.99-102](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=102))  L2 ([TE pp.206-211](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=220), [TB pp.103-106](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=106))  L3 ([TE pp.212-217](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=226), [TB pp.107-113](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=110))  L4 ([TE pp.218-221](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=232), [TB pp.114-115](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=117))  L5 ([TE pp.222-227](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=236), [TB pp.116-118](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=119))  L6 ([TE pp.228-234](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=242), [TB pp.119-122](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=122))  Key Resources  L1-5 **Designing Clay** activity  L6 **Snowboard Engineering** video  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  **Grade 5 Module 3**  **Benchmark Assessment: Water Pollution**  ([TE pp.206-213](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=220)) |
| **DCI** | **ETS1.B: Developing Possible Solutions**   * Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. (3–5-ETS1-3) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ1  L2 ([TE pp.58-63](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=72), [TB pp.17-18](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=20))  L5 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=92), [TB pp.23-31](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=26))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ4  L1 ([TE pp.200-205](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=214), [TB pp.99-102](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=102))  L2 ([TE pp.206-211](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=220), [TB pp.103-106](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=106))  L3 ([TE pp.212-217](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=226), [TB pp.107-113](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=110))  L4 ([TE pp.218-221](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=232), [TB pp.114-115](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=117))  Key Resources  L1-4 **Designing Clay** activity  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L1 ([TE pp.176-183](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=190), [TB pp.109-112](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=112))  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121))  L4 ([TE pp.196-201](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=210), [TB pp.125-127](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=128))  L5 ([TE pp.202-205](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=216), [TB pp.128-130](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=131)) |
| **DCI** | **ETS1.C: Optimizing the Design Solution**   * Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. (3–5-ETS1-3) | **EXAMPLES**  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ1  L5 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=92), [TB pp 23-31](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=26))  L7 ([TE pp.92-98](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=106), [TB pp.36-38](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=39))  **Grade 5 Module 1**  **Matter Mysteries Hotline**  M1\_DQ4  L2 ([TE pp.206-211](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=220), [TB pp.103-106](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=106))  L3 ([TE pp.212-217](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=226), [TB pp.107-113](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=110))  L4 ([TE pp.218-221](https://resource.twigscience.com/book.html?id=00544183070895eced45c&authid=g80X6dbcLcIT&cid=tsplatform&page=232), [TB pp.114-115](https://resource.twigscience.com/book.html?id=005441830af05082ad916&authid=lcodxaGrUxgo&cid=tsplatform&page=117))  **Grade 5 Module 3**  **H2O Response Team**  M3\_DQ5  L2 ([TE pp.184-189](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=198), [TB pp.113-117](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=116))  L3 ([TE pp.190-195](https://resource.twigscience.com/book.html?id=0054418306d8393451c21&authid=f7cdUGOkUuzA&cid=tsplatform&page=204), [TB pp.118-124](https://resource.twigscience.com/book.html?id=0054418304e701cf6cf65&authid=un0ZL4o5tx5w&cid=tsplatform&page=121)) |