**Standards Map for Kindergarten Through Grade Eight**

**Grade 3 – California Next Generation Science Standards**

**3-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** | **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 models to describe phenomena. (3-LS1-1) | **KEY:**  **M = Module**  **DQ = Driving Question**  **L = Lesson**  **TE = Teacher Edition**  **TB = Student Edition known as the Twig Book**  **LR = Leveled Reader**  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ1  L4 ([TE pp.30-37](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=44), [TB p.10](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=13))  L6 ([TE pp.44-49](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=58), [TB pp.13-18](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=16))  L7 ([TE pp.50-55](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=64), [TB pp.19-26](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=22))  L8 ([TE pp.56-61](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=70), [TB pp.27-29](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=30))  L9 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=76), [TB pp.30-31](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=33))  Key Resources  L4 **Life Cycles** interactive  L7 **Life Cycles** interactive | **3-LS1-1.**  **Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.** [Clarification Statement: Changes organisms go through during their life form a pattern.] [*Assessment Boundary: Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.]* | **KEY:**  **M = Module**  **DQ = Driving Question**  **L = Lesson**  **TE = Teacher Edition**  **TB = Student Edition known as the Twig Book**  **LR = Leveled Reader**  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ1  L2 ([TE pp.14-21](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=28), [TB p.7](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=10))  L3 ([TE pp.22-29](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=36), [TB pp.8-9](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=11))  L4 ([TE pp.30-37](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=44), [TB p.10](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=13))  L5 ([TE pp.38-43](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=52), [TB pp.11-12](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=14))  L6 ([TE pp.44-49](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=58), [TB pp.13-18](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=16))  L7 ([TE pp.50-55](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=64), [TB pp.19-26](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=22))  L8 ([TE pp.56-61](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=70), [TB pp.27-29](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=30))  L9 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=76), [TB pp.30-31](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=33))  L10 ([TE pp.70-75](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=84), [TB p.32](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=35))  L11 ([TE pp.76-81](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=90), [TB pp.33-36](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=36))  Key Resources  L3 **Welcome to the Biodome Trailer** video  L4 **Life Cycles** interactive  L5 **Germination** video  L6 **Life Cycle of an Oak Tree** video  L7 **Life Cycles** interactive  L8 **Splash Tetra** video  L9 **Frog Life Cycle** Read-Aloud text, **Life Cycles** interactive, **What Is a Life Cycle?** video  L10 **Tufted Capuchin** video  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ2  L4 ([TE pp.108-113](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=122), [TB pp.46-47](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=49))  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L1 ([TE pp.142-149](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=156), [TB pp.61-62](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=64))  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=4)) |
| **SEP** | ***Connections to Nature of Science***  **Scientific Knowledge is Based on Empirical Evidence**   * Science findings are based on recognizing patterns. (3-LS1-1) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ1  L2 ([TE pp.14-21](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=28), [TB p.7](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=10))  L3 ([TE pp.22-29](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=36), [TB pp.8-9](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=11))  L5 ([TE pp.38-43](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=52), [TB pp.11-12](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=14))  L10 ([TE pp.70-75](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=84), [TB p.32](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=35))  Key Resources  L10 **Tufted Capuchin** video |
| **DCI** | **LS1.B: Growth and Development of Organisms**   * Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. (3-LS1-1) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ1  L2 ([TE pp.14-21](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=28), [TB p.7](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=10))  L3 ([TE pp.22-29](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=36), [TB pp.8-9](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=11))  L4 ([TE pp.30-37](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=44), [TB p.10](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=13))  L5 ([TE pp.38-43](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=52), [TB pp.11-12](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=14))  L6 ([TE pp.44-49](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=58), [TB pp.13-18](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=16))  L7 ([TE pp.50-55](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=64), [TB pp.19-26](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=22))  L8 ([TE pp.56-61](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=70), [TB pp.27-29](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=30))  L9 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=76), [TB pp.30-31](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=33))  L10 ([TE pp.70-75](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=84), [TB p.32](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=35))  L11 ([TE pp.76-81](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=90), [TB pp.33-36](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=36))  Key Resources  L3 **Welcome to the Biodome Trailer** video  L4 **Life Cycles** interactive  L5 **Germination** video  L6 **Life Cycle of an Oak Tree** video  L7 **Life Cycles** interactive  L8 **Splash Tetra** video  L9 **Frog Life Cycle** Read-Aloud text; **Life Cycles** interactive; **What Is a Life Cycle?** video  L10 **Tufted Capuchin** video  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ2  L4 ([TE pp.108-113](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=122), [TB pp.46-47](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=49))  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L1 ([TE pp.142-149](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=156), [TB pp.61-62](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=64))  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=4)) |
| **CCC** | **Patterns**   * Patterns of change can be used to make predictions. (3-LS1-1) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ1  L2 ([TE pp.14-21](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=28), [TB p.7](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=10))  L3 ([TE pp.22-29](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=36), [TB pp.8-9](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=11))  L4 ([TE pp.30-37](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=44), [TB p.10](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=13))  L5 ([TE pp.38-43](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=52), [TB pp.11-12](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=14))  L6 ([TE pp.44-49](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=58), [TB pp.13-18](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=16))  L7 ([TE pp.50-55](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=64), [TB pp.19-26](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=22))  L8 ([TE pp.56-61](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=70), [TB pp.27-29](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=30))  L9 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=76), [TB pp.30-31](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=33))  L10 ([TE pp.70-75](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=84), [TB p.32](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=35))  L11 ([TE pp.76-81](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=90), [TB pp.33-36](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=36))  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L1 ([TE pp.142-149](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=156), [TB pp.61-62](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=64))  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=4)) |

California Department of Education

**3-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** |
|
| **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).   * Construct an argument with evidence, data, and/or a model. (3-LS2-1) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ4  L1 ([TE pp.192-197](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=206), [TB pp.75-80](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=78))  L2 ([TE pp.198-203](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=212), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=84))  L3 ([TE pp.204-209](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=218), [TB p.84](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=87))  L4 ([TE pp.210-215](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=224), [TB pp.85-89](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=88))) | **3-LS2-1.**  **Construct an argument that some animals form groups that help members survive.** | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ4  L1 ([TE pp.192-197](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=206), [TB pp.75-80](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=78))  L2 ([TE pp.198-203](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=212), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=84))  L3 ([TE pp.204-209](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=218), [TB p.84](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=87))  L4 ([TE pp.210-215](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=224), [TB pp.85-89](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=88))  L5 ([TE pp.216-221](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=230), [TB pp.90-92](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=93))  Key Resources  L3 **Birds of a Feather** video  L4 **Bison Herd** video  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  Chapters 2 and 3 ([LR pp.16-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=16)) |
| **DCI** | **LS2.D: Social Interactions and Group Behavior**   * Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size. (Note: Moved from K–2.) (3-LS2-1) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ4  L1 ([TE pp.192-197](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=206), [TB pp.75-80](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=78))  L2 ([TE pp.198-203](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=212), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=84))  L3 ([TE pp.204-209](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=218), [TB p.84](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=87))  L4 ([TE pp.210-215](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=224), [TB pp.85-89](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=88))  L5 ([TE pp.216-221](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=230), [TB pp.90-92](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=93))  Key Resources  L3 **Birds of a Feather** video  L4 **Bison Herd** video  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  Chapters 2 and 3 ([LR pp.16-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=16)) |
| **CCC** | **Cause and Effect**   * Cause and effect relationships are routinely identified and used to explain change. (3-LS2-1) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ4  L2 ([TE pp.198-203](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=212), [TB pp.81-83](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=84))  L3 ([TE pp.204-209](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=218), [TB p.84](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=87))  L4 ([TE pp.210-215](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=224), [TB pp.85-89](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=88))  L5 ([TE pp.216-221](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=230), [TB pp.90-92](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=93))  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  Chapters 2 and 3 ([LR pp.16-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=16)) |

**3-LS3 Heredity: Inheritance and Variation of Traits**

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **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.   * Analyze and interpret data to make sense of phenomena using logical reasoning. (3-LS3-1) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ2  L1 ([TE pp.90-95](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=104), [TB pp.39-40](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=42))  L3 ([TE pp.102-107](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=116), [TB pp.43-45](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=46))  L5 ([TE pp.114-119](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=128), [TB pp.48-50](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=51))  Key Resources  L1 **Matching Young with Parents** interactive  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L1 ([TE pp.142-149](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=156), [TB pp.61-62](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=64)) | **3-LS3-1.**  **Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.** [Clarification Statement: Patterns are the similarities and differences in traits shared between offspring and their parents, or among siblings. Emphasis is on organisms other than humans.] [*Assessment Boundary: Assessment does not include genetic mechanisms of inheritance and prediction of traits. Assessment is limited to non-human examples.*] | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ2  L1 ([TE pp.90-95](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=104), [TB pp.39-40](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=42))  L3 ([TE pp.102-107](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=116), [TB pp.43-45](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=46))  L4 ([TE pp.108-113](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=122), [TB pp.46-47](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=49))  L5 ([TE pp.114-119](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=128), [TB pp.48-50](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=51))  L6 ([TE pp.120-127](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=134), [TB pp.51-56](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=54))  Key Resources  L1 **Matching Young with Parents** interactive  L3 **Savanna** video  L6 **Reproduction** video  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L1 ([TE pp.142-149](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=156), [TB pp.61-62](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=64))  L2 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=164), [TB pp.63-64](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=66))  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=4))  **Grade 3 Module 2 Benchmark Assessment:  Life Cycles and Traits** [(TE pp.182-185)](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=196) |
| **DCI** | **LS3.A: Inheritance of Traits**   * Many characteristics of organisms are inherited from their parents. (3-LS3-1) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ2  L1 ([TE pp.90-95](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=104), [TB pp.39-40](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=42))  L3 ([TE pp.102-107](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=116), [TB pp.43-45](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=46))  L4 ([TE pp.108-113](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=122), [TB pp.46-47](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=49))  L5 ([TE pp.114-119](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=128), [TB pp.48-50](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=51))  L6 ([TE pp.120-127](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=134), [TB pp.51-56](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=54))  Key Resources  L1 **Matching Young with Parents** interactive  L3 **Savanna** video  L6 **Reproduction** video  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=4))  **Grade 3 Module 2 Benchmark Assessment:  Life Cycles and Traits** [(TE pp.182-185)](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=196) |
| **DCI** | **LS3.B: Variation of Traits**   * Different organisms vary in how they look and function because they have different inherited information. (3-LS3-1) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ2  L1 ([TE pp.90-95](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=104), [TB pp.39-40](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=42))  L3 ([TE pp.102-107](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=116), [TB pp.43-45](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=46))  L4 ([TE pp.108-113](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=122), [TB pp.46-47](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=49))  L5 ([TE pp.114-119](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=128), [TB pp.48-50](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=51))  L6 ([TE pp.120-127](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=134), [TB pp.51-56](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=54))  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L1 ([TE pp.142-149](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=156), [TB pp.61-62](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=64))  L2 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=164), [TB pp.63-64](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=66))  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=4)) |
| **CCC** | **Patterns**   * Similarities and differences in patterns can be used to sort and classify natural phenomena. (3-LS3-1) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ2  L1 ([TE pp.90-95](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=104), [TB pp.39-40](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=42))  L3 ([TE pp.102-107](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=116), [TB pp.43-45](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=46))  L5 ([TE pp.114-119](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=128), [TB pp.48-50](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=51))  L6 ([TE pp.120-127](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=134), [TB pp.51-56](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=54))  **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L1 ([TE pp.142-149](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=156), [TB pp.61-62](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=64))  L2 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=164), [TB pp.63-64](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=66))  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=4)) |

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **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.   * Use evidence (e.g., observations, patterns) to support an explanation. (3-LS3-2) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ1  L3 ([TE pp.24-29](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=38), [TB pp.13-15](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=16))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L5 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=156), [TB pp.66-67](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=69))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  Chapter 2 ([LR pp.14-21](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=16)) | **3-LS3-2.**  **Use evidence to support the explanation that traits can be influenced by the environment.** [Clarification Statement: Examples of the environment affecting a trait could include normally tall plants grown with insufficient water are stunted; and a pet dog that is given too much food and little exercise may become overweight.] | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ1  L3 ([TE pp.24-29](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=38), [TB pp.13-15](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=16))  L4 ([TE pp.30-35](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=44), [TB pp.16-17](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=19))  L5 ([TE pp.36-41](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=50), [TB pp.18-20](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=21))  L6 ([TE pp.42-48](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=56), [TB pp.21-22](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=24)) Key Resources  L3 **Traits—Odd One Out** video  L4 **Why Are Flamingos Pink?** Video, **Young Caimans** video  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L2 ([TE pp.64-69](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=78), [TB pp.27-30](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=30))  L4 ([TE pp.78-82](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=92), [TB p.33-34](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=36))  L5 ([TE pp.84-89](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=98), [TB pp.35-36](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=38))  Key Resources  L4 T**he Arctic Tundra Environment** video  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L1 ([TE pp.116-121](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=130), [TB pp.49-52](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=52))  L5 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=156), [TB pp.66-67](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=69))  L6 ([TE pp.148-154](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=162), [TB pp.68-72](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=71))  **Grade 3 Module 3 Benchmark Assessment:  A Year Without Summer** ([TE pp.181-186](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=194))  Key Resources  **Eruption of Mount Tambora** visual  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4)) |
| **DCI** | **LS3.A: Inheritance of Traits**   * Other characteristics result from individuals’ interactions with the environment, which can range from diet to learning. Many characteristics involve both inheritance and environment. (3-LS3-2) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ1  L3 ([TE pp.24-29](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=38), [TB pp.13-15](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=16))  L4 ([TE pp.30-35](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=44), [TB pp.16-17](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=19))  L5 ([TE pp.36-41](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=50), [TB pp.18-20](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=21))  L6 ([TE pp.42-48](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=56), [TB pp.21-22](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=24))  Key Resources  L3 **Traits—Odd One Out** video  L4 **Why Are Flamingos Pink?** Video, **Young Caimans** video  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L2 ([TE pp.64-69](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=78), [TB pp.27-30](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=30))  L5 ([TE pp.84-89](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=98), [TB pp.35-36](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=38))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L1 ([TE pp.116-121](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=130), [TB pp.49-52](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=52))  L6 ([TE pp.148-154](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=162), [TB pp.68-72](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=71))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4)) |
| **DCI** | **LS3.B: Variation of Traits**   * The environment also affects the traits that an organism develops. (3-LS3-2) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ1  L3 ([TE pp.24-29](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=38), [TB pp.13-15](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=16))  L4 ([TE pp.30-35](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=44), [TB pp.16-17](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=19))  L5 ([TE pp.36-41](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=50), [TB pp.18-20](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=21))  L6 ([TE pp.42-48](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=56), [TB pp.21-22](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=24))  Key Resources  L3 **Traits—Odd One Out** video  L4 **Why Are Flamingos Pink?** Video, **Young Caimans** video  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L2 ([TE pp.64-69](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=78), [TB pp.27-30](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=30))  L5 ([TE pp.84-89](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=98), [TB pp.35-36](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=38))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L1 ([TE pp.116-121](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=130), [TB pp.49-52](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=52))  L6 ([TE pp.148-154](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=162), [TB pp.68-72](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=71))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4)) |
| **CCC** | **Cause and Effect**   * Cause and effect relationships are routinely identified and used to explain change. (3-LS3-2) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ1  L3 ([TE pp.24-29](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=38), [TB pp.13-15](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=16))  L4 ([TE pp.30-35](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=44), [TB pp.16-17](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=19))  L5 ([TE pp.36-41](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=50), [TB pp.18-20](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=21))  L6 ([TE pp.42-48](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=56), [TB pp.21-22](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=24))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L2 ([TE pp.64-69](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=78), [TB pp.27-30](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=30))  L4 ([TE pp.78-82](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=92), [TB p.33-34](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=36))  L5 ([TE pp.84-89](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=98), [TB pp.35-36](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=38))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L1 ([TE pp.116-121](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=130), [TB pp.49-52](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=52))  L5 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=156), [TB pp.66-67](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=69))  L6 ([TE pp.148-154](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=162), [TB pp.68-72](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=71))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4)) |

**3-LS4 Biological Evolution: Unity and Diversity**

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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.   * Analyze and interpret data to make sense of phenomena using logical reasoning. (3-LS4-1) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L3 ([TE pp.70-77](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=84), [TB pp.31-32](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=34))  Key Resources  L3 **Paleontologists** video  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L5 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=156), [TB pp. 66-67](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=69))  L6 ([TE pp.148-154](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=162), [TB pp.68-72](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=71)) | **3-LS4-1.**  **Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.** [Clarification Statement: Examples of data could include type, size, and distributions of fossil organisms. Examples of fossils and environments could include marine fossils found on dry land, tropical plant fossils found in Arctic areas, and fossils of extinct organisms.] [*Assessment Boundary: Assessment does not include identification of specific fossils or present plants and animals. Assessment is limited to major fossil types and relative ages.*] | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L1 ([TE pp.56-63](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=70), [TB pp.25-26](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=28))  L3 ([TE pp.70-77](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=84), [TB pp.31-32](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=34))  Key Resources  L1 **How to Survive an Ice Age Trailer** video, **Animals of the Ice Age Read-Aloud** text  L3 **Paleontologists** video  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L3 ([TE pp.128-135](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=142), [TB pp.61-62](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=64))  L5 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=156), [TB pp. 66-67](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=69))  L6 ([TE pp.148-154](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=162), [TB pp.68-72](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=71))  Key Resources  L3 **Ice Age Survival** interactive, **End of the Ice Age** video |
| **DCI** | **LS4.A: Evidence of Common Ancestry and Diversity**   * Some kinds of plants and animals that once lived on Earth are no longer found anywhere. (Note: Moved from K–2.) (3-LS4-1) * Fossils provide evidence about the types of organisms that lived long ago and also about the nature of their environments. (3-LS4-1) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L3 ([TE pp.70-77](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=84), [TB pp.31-32](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=34))  Key Resources  L3 **Paleontologists** video |
| **CCC** | **Scale, Proportion, and Quantity**   * Observable phenomena exist from very short to very long time periods. (3-LS4-1) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L3 ([TE pp.128-135](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=142), [TB pp.61-62](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=64))  L4 ([TE pp.136-141](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=150), [TB pp.63-65](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=66))  L5 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=156), [TB pp. 66-67](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=69))  Key Resources  L3 **Ice Age Survival** interactive, **End of the Ice Age** video |
|  | ***Connections to Nature of Science***  **Scientific Knowledge Assumes an Order and Consistency in Natural Systems**   * Science assumes consistent patterns in natural systems. (3-LS4-1) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L3 ([TE pp.70-77](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=84), [TB pp.31-32](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=34))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L5 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=156), [TB pp. 66-67](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=69)) |  |

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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.   * Use evidence (e.g., observations, patterns) to construct an explanation. (3-LS4-2) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L2 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=164), [TB pp.63-64](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=66))  L4 ([TE pp.162-167](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=176), [TB pp.66-67](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=69))  L6 ([TE pp.174-181](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=188), [TB pp.70-72](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=73)) | **3-LS4-2.**  **Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.** [Clarification Statement: Examples of cause and effect relationships could be plants that have larger thorns than other plants may be less likely to be eaten by predators; and animals that have better camouflage coloration than other animals may be more likely to survive and therefore more likely to leave offspring.] | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L1 ([TE pp.142-149](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=156), [TB pp.61-62](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=64))  L2 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=164), [TB pp.63-64](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=66))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=170), [TB p.65](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=68))  L4 ([TE pp.162-167](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=176), [TB pp.66-67](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=69))  L5 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=182), [TB pp.68-69](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=71))  L6 ([TE pp.174-181](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=188), [TB pp.70-72](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=73))  Key Resources  L3 **Leaf-Tailed Geckos of Madagascar** video  **Grade 3 Module 2 Benchmark Assessment:  Life Cycles and Traits** [(TE pp.182-185)](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=196)  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  Chapters 2 and 3 ([LR pp.16-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=16)) |
| **DCI** | **LS4.B: Natural Selection**   * Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing. (3-LS4-2) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L1 ([TE pp.142-149](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=156), [TB pp.61-62](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=64))  L2 ([TE pp.150-155](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=164), [TB pp.63-64](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=66))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=170), [TB p.65](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=68))  L4 ([TE pp.162-167](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=176), [TB pp.66-67](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=69))  L5 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=182), [TB pp.68-69](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=71))  L6 ([TE pp.174-181](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=188), [TB pp.70-72](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=73)) |
| **CCC** | **Cause and Effect**   * Cause and effect relationships are routinely identified and used to explain change. (3-LS4-2) | **Grade 3 Module 2**  **Welcome to the Biodome**  M2\_DQ3  L1 ([TE pp.142-149](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=156), [TB pp.61-62](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=64))  L3 ([TE pp.156-161](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=170), [TB p.65](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=68))  L4 ([TE pp.162-167](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=176), [TB pp.66-67](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=69))  L5 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=182), [TB pp.68-69](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=71))  L6 ([TE pp.174-181](https://resource.twigscience.com/book.html?id=00544183081f47986c5fe&authid=tGpEfSdmfbQ9&cid=tsplatform&page=188), [TB pp.70-72](https://resource.twigscience.com/book.html?id=005441830b5aadd6a4e3a&authid=5g2OLHQAa9ox&cid=tsplatform&page=73))  **Grade 3 Module 2**  **Leveled Reader: Life Cycles**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=00544183081541e89e66b&authid=nyIMIUrCi3Wx&cid=tsplatform&page=4)) |

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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).   * Construct an argument with evidence. (3-LS4-3) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L7 ([TE pp.98-103](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=112), [TB pp.41-42](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=44))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  Chapter 2 ([LR 14-21](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=16)) | **3-LS4-3.**  **Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.** [Clarification Statement: Examples of evidence could include needs and characteristics of the organisms and habitats involved. The organisms and their habitat make up a system in which the parts depend on each other.] | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L4 ([TE pp.78-83](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=92), [TB pp.33-34](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=36))  L6 ([TE pp.90-97](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=104), [TB pp.37–40](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=40))  L7 ([TE pp.98-103](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=112), [TB pp.41-42](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=44))  L8 ([TE pp.104-108](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=118), [TB pp.43-46](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=46))  Key Resources  L4 T**he Arctic Tundra Environment** video  L6 **Animal Traits and Environments** text  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L1 ([TE pp.160-167](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=174), [TB pp.75-77](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=78))  L2 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=182), [TB pp.78-82](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=81))  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  Key Resources  L1 **Burmese Python** video  L2 **California’s Field** **Mustard** text  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4)) |
| **DCI** | **LS4.C: Adaptation**   * For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. (3-LS4-3) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L4 ([TE pp.78-83](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=92), [TB pp.33-34](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=36))  L6 ([TE pp.90-97](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=104), [TB pp.37–40](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=40))  L7 ([TE pp.98-103](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=112), [TB pp.41-42](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=44))  L8 ([TE pp.104-108](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=118), [TB pp.43-46](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=46))  Key Resources  L4 T**he Arctic Tundra Environment** video  L6 **Animal Traits and Environments** text  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L1 ([TE pp.160-167](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=174), [TB pp.75-77](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=78))  L2 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=182), [TB pp.78-82](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=81))  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  Key Resources  L1 **Burmese Python** video  L2 **California’s Field** **Mustard** text  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4)) |
| **CCC** | **Cause and Effect**   * Cause and effect relationships are routinely identified and used to explain change. (3-LS4-3) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L4 ([TE pp.78-83](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=92), [TB pp.33-34](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=36))  L6 ([TE pp.90-97](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=104), [TB pp.37–40](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=40))  L7 ([TE pp.98-103](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=112), [TB pp.41-42](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=44))  L8 ([TE pp.104-108](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=118), [TB pp.43-46](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=46))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L1 ([TE pp.160-167](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=174), [TB pp.75-77](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=78))  L2 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=182), [TB pp.78-82](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=81))  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4)) |

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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).   * Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem. (3-LS4-4) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments** Chapter 2 ([LR 14-21](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=16))  **Grade 3 Module 3 Benchmark Assessment:  A Year Without Summer** ([TE pp.181-186](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=194))  Key Resources  **Eruption of Mount Tambora** visual | **3-LS4-4.**  **Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.\*** [Clarification Statement: Examples of environmental changes could include changes in land characteristics, water distribution, temperature, food, and other organisms.] [*Assessment Boundary: Assessment is limited to a single environmental change. Assessment does not include the greenhouse effect or climate change.*] | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L1 ([TE pp.160-167](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=174), [TB pp.75-77](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=78))  L2 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=182), [TB pp.78-82](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=81))  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  Key Resources  L1 **Burmese Python** video  L2 **California’s Field** **Mustard** text  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L4 ([TE pp.136-141](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=150), [TB pp.63-65](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=66))  L5 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=156), [TB pp.66-67](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=69))  Key Resources  L4 **Ice Age Survival** interactive  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4))  **Grade 3 Module 3 Benchmark Assessment:  A Year Without Summer** ([TE pp.181-186](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=194))  Key Resources  **Eruption of Mount Tambora** visual |
| **DCI** | **LS2.C: Ecosystem Dynamics, Functioning, and Resilience**   * When the environment changes in ways that affect a place’s physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die. (secondary to 3-LS4-4) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L1 ([TE pp.160-167](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=174), [TB pp.75-77](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=78))  L2 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=182), [TB pp.78-82](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=81))  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L4 ([TE pp.136-141](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=150), [TB pp.63-65](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=66))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4)) |
| **DCI** | **LS4.D: Biodiversity and Humans**   * Populations live in a variety of habitats, and change in those habitats affects the organisms living there. (3-LS4-4) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L1 ([TE pp.160-167](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=174), [TB pp.75-77](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=78))  L2 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=182), [TB pp.78-82](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=81))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L4 ([TE pp.136-141](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=150), [TB pp.63-65](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=66))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4)) |
| **CCC** | **Systems and System Models**   * A system can be described in terms of its components and their interactions. (3-LS4-4) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L2 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=182), [TB pp.78-82](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=81))  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=4)) |
| **CCC** | ***Connections to Engineering, Technology,***  ***and Applications of Science***  **Interdependence of Engineering, Technology and Applications of Science on Society and the Natural World**   * Knowledge of relevant scientific concepts and research findings is important in engineering. (3-LS4-4) | **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ3  L4 ([TE pp.136-141](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=150), [TB pp.63-65](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=66))  L5 ([TE pp.142-147](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=156), [TB pp.66-67](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=69))  **Grade 3 Module 3**  **Leveled Reader: Surviving in Different Environments**  Chapter 2 ([LR pp.14-21](https://resource.twigscience.com/book.html?id=005441830542541b03c76&authid=YWhWrMCgmhlY&cid=tsplatform&page=16)) |  |

**3-ESS2 Earth’s Systems**

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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 tables and various graphical displays (bar graphs, pictographs) to reveal patterns that indicate relationships. (3-ESS2-1) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ1  L2 ([TE pp.16-23](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=30), [TB pp.5-8](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=8))  L3 ([TE pp.24-31](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=38), [TB pp.9-12](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=12))  L4 ([TE pp.32-37](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=46), [TB pp.13-18](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=16))  L5 ([TE pp.38-45](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=52), [TB pp.19-22](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=22))  L7 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=68), [TB pp.25-27](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=28))  L8 ([TE pp.62-67](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=76), [TB pp.28-30](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=31))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ2  L1 ([TE pp.76-81](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=90), [TB pp.33-35](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=36))  L2 ([TE pp.82-89](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=96), [TB pp.36-37](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=39))  L3 ([TE pp.90-95](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=104), [TB pp.38-39](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=41))  L4 ([TE pp.96-101](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=110), [TB pp.40-42](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=43))  L5 ([TE pp.102-107](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=116), [TB pp.43-50](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=46))  Key Resources  L1 **Weather Data Bar Graphs** interactive, **Weather Warning HQ—On the Move, Part 1** video  L2 **Weather Data Bar Graphs** interactive, **Weather Warning HQ—On the Move, Part 2** video  L3 **Weather Data Bar Graphs** interactive, **Weather Warning HQ—On the Move, Part 3** video  **Grade 3 Module 4 Benchmark Assessment:  How Does Weather Impact My Community?** ([TE 108-111](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=122))  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  Chapter 2 ([LR 14-23](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=16)) | **3-ESS2-1.**  **Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.** [Clarification Statement: Examples of data could include average temperature, precipitation, and wind direction.] [*Assessment Boundary: Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change*.] | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ1  L1 ([TE pp.8-15](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=22), [TB pp.3-4](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=6))  L2 ([TE pp.16-23](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=30), [TB pp.5-8](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=8))  L3 ([TE pp.24-31](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=38), [TB pp.9-12](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=12))  L5 ([TE pp.38-45](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=52), [TB pp.19-22](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=22))  L6 ([TE pp.46-53](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=60), [TB pp.23-24](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=26))  L7 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=68), [TB pp.25-27](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=28))  L8 ([TE pp.62-67](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=76), [TB pp.28-30](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=31))  Key Resources  L1 **Weather Prior-Knowledge Read-Aloud** text, **What Is Weather?** Video, **Weather Warning HQ Trailer** video  L2 **Heat and Temperature—Did You Know?** video  L3 **Weather Warning HQ—Event Planning** video  L5 **Weather Warning HQ—Land-Sailing** video  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ2  L1 ([TE pp.76-81](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=90), [TB pp.33-35](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=36))  L2 ([TE pp.82-89](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=96), [TB pp.36-37](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=39))  L3 ([TE pp.90-95](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=104), [TB pp.38-39](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=41))  L4 ([TE pp.96-101](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=110), [TB pp.40-42](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=43))  L5 ([TE pp.102-107](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=116), [TB pp.43-50](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=46))  Key Resources  L1 **Weather Data Bar Graphs** interactive, **Weather Warning HQ—On the Move, Part 1** video  L2 **Weather Data Bar Graphs** interactive, **Weather Warning HQ—On the Move, Part 2** video  L3 **Weather Data Bar Graphs** interactive, **Weather Warning HQ—On the Move, Part 3** video  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4))  **Grade 3 Module 4 Benchmark Assessment:  How Does Weather Impact My Community?** ([TE 108-111](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=122)) |
| **DCI** | **ESS2.D: Weather and Climate**   * Scientists record patterns of the weather across different times and areas so that they can make predictions about what kind of weather might happen next. (3-ESS2-1) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ1  L2 ([TE pp.16-23](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=30), [TB pp.5-8](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=8))  L3 ([TE pp.24-31](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=38), [TB pp.9-12](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=12))  L4 ([TE pp.32-37](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=46), [TB pp.13-18](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=16))  L5 ([TE pp.38-45](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=52), [TB pp.19-22](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=22))  L7 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=68), [TB pp.25-27](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=28))  L8 ([TE pp.62-67](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=76), [TB pp.28-30](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=31))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ2  L1 ([TE pp.76-81](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=90), [TB pp.33-35](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=36))  L2 ([TE pp.82-89](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=96), [TB pp.36-37](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=39))  L3 ([TE pp.90-95](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=104), [TB pp.38-39](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=41))  L4 ([TE pp.96-101](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=110), [TB pp.40-42](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=43))  L5 ([TE pp.102-107](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=116), [TB pp.43-50](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=46))  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4)) |
| **CCC** | **Patterns**   * Patterns of change can be used to make predictions. (3-ESS2-1) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ1  L2 ([TE pp.16-23](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=30), [TB pp.5-8](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=8))  L3 ([TE pp.24-31](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=38), [TB pp.9-12](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=12))  L5 ([TE pp.38-45](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=52), [TB pp.19-22](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=22))  L6 ([TE pp.46-53](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=60), [TB pp.23-24](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=26))  L7 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=68), [TB pp.25-27](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=28))  L8 ([TE pp.62-67](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=76), [TB pp.28-30](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=31))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ2  L1 ([TE pp.76-81](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=90), [TB pp.33-35](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=36))  L2 ([TE pp.82-89](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=96), [TB pp.36-37](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=39))  L3 ([TE pp.90-95](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=104), [TB pp.38-39](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=41))  L4 ([TE pp.96-101](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=110), [TB pp.40-42](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=43))  L5 ([TE pp.102-107](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=116), [TB pp.43-50](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=46))  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4)) |

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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 other reliable media to explain phenomena. (3-ESS2-2) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ3  L2 ([TE pp.124-131](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=138), [TB pp.54-59](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=57))  L3 ([TE pp.132-137](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=146), [TB pp.60-67](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=63))  L4 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=152), [TB pp.68-75](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=71)) | **3-ESS2-2.**  **Obtain and combine information to describe climates in different regions of the world.** | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ3  L1 ([TE pp.118-123](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=132), [TB p.53](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=56))  L2 ([TE pp.124-131](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=138), [TB pp.54-59](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=57))  L3 ([TE pp.132-137](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=146), [TB pp.60-67](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=63))  L4 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=152), [TB pp.68-75](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=71))  L5 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=158), [TB pp.76-78](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=79))  Key Resources  L1 **Climate** video  L2 **Weather Warning HQ—Ice Fisherman** video, **Climate in the Polar Zones** text  L3 **The Temperate Zones** text  L4 **The Equator** video  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ2  L1 ([TE pp.76-81](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=90), [TB pp.33-35](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=36))  L2 ([TE pp.82-89](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=96), [TB pp.36-37](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=39))  L3 ([TE pp.90-95](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=104), [TB pp.38-39](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=41))  L4 ([TE pp.96-101](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=110), [TB pp.40-42](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=43))  L5 ([TE pp.102-107](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=116), [TB pp.43-50](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=46))  Key Resources  L1 **Weather Data Bar Graphs** interactive, **Weather Warning HQ—On the Move, Part 1** video  L2 **Weather Data Bar Graphs** interactive, **Weather Warning HQ—On the Move, Part 2** video  L3 **Weather Data Bar Graphs** interactive, **Weather Warning HQ—On the Move, Part 3** video  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4)) |
| **DCI** | **ESS2.D: Weather and Climate**   * Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over years. (3-ESS2-2) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ3  L1 ([TE pp.118-123](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=132), [TB p.53](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=56))  L2 ([TE pp.124-131](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=138), [TB pp.54-59](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=57))  L3 ([TE pp.132-137](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=146), [TB pp.60-67](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=63))  L4 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=152), [TB pp.68-75](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=71))  L5 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=158), [TB pp.76-78](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=79))  Key Resources  L1 **Climate** video  L2 **Weather Warning HQ—Ice Fisherman** video, **Climate in the Polar Zones** text  L3 **The Temperate Zones** text  L4 **The Equator** video  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4)) |
| **CCC** | **Patterns**   * Patterns of change can be used to make predictions. (3-ESS2-2) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ3  L1 ([TE pp.118-123](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=132), [TB p.53](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=56))  L2 ([TE pp.124-131](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=138), [TB pp.54-59](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=57))  L3 ([TE pp.132-137](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=146), [TB pp.60-67](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=63))  L4 ([TE pp.138-143](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=152), [TB pp.68-75](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=71))  L5 ([TE pp.144-149](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=158), [TB pp.76-78](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=79))  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4)) |

**3-ESS3 Earth and Human Activity**

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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).   * Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem. (3-ESS3-1) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  L5 ([TE pp.180-185](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=194), [TB pp.93-95](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=96)) | **3-ESS3-1.**  **Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.\*** [Clarification Statement: Examples of design solutions to weather-related hazards could include barriers to prevent flooding, wind resistant roofs, and lightning rods.] | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L3 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=182), [TB pp.85-88](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=88))  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  L5 ([TE pp.180-185](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=194), [TB pp.93-95](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=96))  L6 ([TE pp.186-190](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=200), [TB p.96](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=99))  Key Resources  L3 **Lightning Risks** video  **Twig Science Reporter** Key Resources News Update 09/11/2017  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  Chapter 1 ([LR pp.2-13](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4)) |
| **DCI** | **ESS3.B: Natural Hazards**   * A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts. (3-ESS3-1) (Note: This Disciplinary Core Idea is also addressed by 4-ESS3-2.) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L3 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=182), [TB pp.85-88](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=88))  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  L5 ([TE pp.180-185](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=194), [TB pp.93-95](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=96))  L6 ([TE pp.186-190](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=200), [TB p.96](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=99))  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4)) |
| **CCC** | **Cause and Effect**   * Cause and effect relationships are routinely identified, tested, and used to explain change. (3-ESS3-1) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L3 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=182), [TB pp.85-88](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=88))  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  L5 ([TE pp.180-185](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=194), [TB pp.93-95](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=96))  L6 ([TE pp.186-190](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=200), [TB p.96](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=99))  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4)) |
| **CCC** | ***Connections to Engineering, Technology,***  ***and Applications of Science***  **Influence of Engineering, Technology, and Science on Society and the Natural World**   * Engineers improve existing technologies or develop new ones to increase their benefits (e.g., better artificial limbs), decrease known risks (e.g., seatbelts in cars), and meet societal demands (e.g., cell phones). (3-ESS3-1) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L3 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=182), [TB pp.85-88](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=88))  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  Chapter 1 ([LR pp.2-13](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4))  **Twig Science Reporter**  Key Resources  News Update 09/11/2017 |  |
| **CCC** | ***Connections to Nature of Science***  **Science is a Human Endeavor**   * Science affects everyday life. (3-ESS3-1) | **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L3 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=182), [TB pp.85-88](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=88))  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  L5 ([TE pp.180-185](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=194), [TB pp.93-95](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=96))  L6 ([TE pp.186-190](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=200), [TB p.96](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=99))  **Grade 3 Module 4**  **Leveled Reader: Weather Hazards**  All chapters ([LR pp.2-32](https://resource.twigscience.com/book.html?id=005441830a8ec81508362&authid=SbOXmIlvIGZM&cid=tsplatform&page=4)) |  |

**3-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** | **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-PS2-1) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ1  L6 ([TE pp.92-101](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=106), [TB pp.27-30](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=30))  **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ2  L2 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=136), [TB pp.40-41](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=43))  L3 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=144), [TB pp.42-43](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=45))  L4 ([TE pp.138-145](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=152), [TB pp.44-46](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=47)) | **3-PS2-1.**  **Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.** [Clarification Statement: Examples could include an unbalanced force on one side of a ball can make it start moving; and balanced forces pushing on a box from both sides will not produce any motion at all.][*Assessment Boundary: Assessment is limited to one variable at a time: number, size, or direction of forces. Assessment does not include quantitative force size, only qualitative and relative. Assessment is limited to gravity being addressed as a force that pulls objects down*.] | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ1  L1 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=68), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=18))  L2 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=76), [TB pp.17-20](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=20))  L3 ([TE pp.70-77](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=84), [TB p.21](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=24))  L4 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=92), [TB pp.22-24](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=25))  L5 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=100), [TB pp.25-26](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=28))  L6 ([TE pp.92-101](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=106), [TB pp.27-30](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=30))  L7 ([TE pp.102-108](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=116), [TB pp.31-34](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=34))  Key Resources  L1 **Skateboarding** Prior-Knowledge Read-Aloud  L2 **The Ultimate Playground Trailer** video, **Ice City** text  L4 **What Is a Force?** Video, **Gravity** video  L7 **The Physics of Soccer** text  **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ2  L1 ([TE pp.114-121](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=128), [TB pp.37-39](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=40))  L2 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=136), [TB pp.40-41](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=43))  L3 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=144), [TB pp.42-43](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=45))  L4 ([TE pp.138-145](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=152), [TB pp.44-46](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=47))  L5 ([TE pp.146-150](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=160), [TB pp.47-48](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=50))  Key Resources  L4 **Spot the Balanced Forces** video |
| **SEP** | ***Connections to Nature of Science***  **Scientific Investigations Use a Variety of Methods**   * Science investigations use a variety of methods, tools, and techniques. (3-PS2-1) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ1  L1 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=68), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=18))  L4 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=92), [TB pp.22-24](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=25))  L6 ([TE pp.92-101](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=106), [TB pp.27-30](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=30))  **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ2  L2 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=136), [TB pp.40-41](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=43))  L3 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=144), [TB pp.42-43](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=45))  L4 ([TE pp.138-145](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=152), [TB pp.44-46](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=47)) |
| **DCI** | **PS2.A: Forces and Motion**   * Each force acts on one particular object and has both strength and a direction. An object at rest typically has multiple forces acting on it, but they add to give zero net force on the object. Forces that do not sum to zero can cause changes in the object’s speed or direction of motion. (Boundary: Qualitative and conceptual, but not quantitative addition of forces are used at this level.) (3-PS2-1) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ1  L1 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=68), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=18))  L2 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=76), [TB pp.17-20](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=20))  L3 ([TE pp.70-77](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=84), [TB p.21](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=24))  L4 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=92), [TB pp.22-24](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=25))  L5 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=100), [TB pp.25-26](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=28))  L6 ([TE pp.92-101](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=106), [TB pp.27-30](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=30))  L7 ([TE pp.102-108](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=116), [TB pp.31-34](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=34))  Key Resources  L4 **What Is a Force?** Video, **Gravity** video  **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ2  L1 ([TE pp.114-121](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=128), [TB pp.37-39](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=40))  L2 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=136), [TB pp.40-41](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=43))  L3 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=144), [TB pp.42-43](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=45))  L4 ([TE pp.138-145](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=152), [TB pp.44-46](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=47))  L5 ([TE pp.146-150](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=160), [TB pp.47-48](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=50))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |
| **DCI** | **PS2.B: Types of Interactions**   * Objects in contact exert forces on each other. (3-PS2-1) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ1  L1 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=68), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=18))  L3 ([TE pp.70-77](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=84), [TB p.21](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=24))  L4 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=92), [TB pp.22-24](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=25))  L5 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=100), [TB pp.25-26](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=28))  L6 ([TE pp.92-101](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=106), [TB pp.27-30](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=30))  L7 ([TE pp.102-108](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=116), [TB pp.31-34](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=34))  **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ2  L1 ([TE pp.114-121](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=128), [TB pp.37-39](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=40))  L2 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=136), [TB pp.40-41](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=43))  L3 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=144), [TB pp.42-43](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=45))  L4 ([TE pp.138-145](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=152), [TB pp.44-46](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=47))  L5 ([TE pp.146-150](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=160), [TB pp.47-48](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=50))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |
| **CCC** | **Cause and Effect**   * Cause and effect relationships are routinely identified. (3-PS2-1) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ1  L1 ([TE pp.54-61](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=68), [TB pp.15-16](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=18))  L2 ([TE pp.62-69](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=76), [TB pp.17-20](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=20))  L3 ([TE pp.70-77](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=84), [TB p.21](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=24))  L4 ([TE pp.78-85](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=92), [TB pp.22-24](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=25))  L5 ([TE pp.86-91](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=100), [TB pp.25-26](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=28))  L6 ([TE pp.92-101](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=106), [TB pp.27-30](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=30))  L7 ([TE pp.102-108](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=116), [TB pp.31-34](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=34))  **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ2  L1 ([TE pp.114-121](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=128), [TB pp.37-39](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=40))  L2 ([TE pp.122-129](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=136), [TB pp.40-41](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=43))  L3 ([TE pp.130-137](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=144), [TB pp.42-43](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=45))  L4 ([TE pp.138-145](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=152), [TB pp.44-46](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=47))  L5 ([TE pp.146-150](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=160), [TB pp.47-48](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=50))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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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.   * Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution. (3-PS2-2) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ3  L3 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=184), [TB pp.55-57](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=58))  L4 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=190), [TB pp.58-60](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=61))  L5 ([TE pp.182-189](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=196), [TB pp.61-64](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=64)) | **3-PS2-2. Make observations and/or measurements of an object’s motion to provide evidence that a pattern can be used to predict future motion.** [Clarification Statement: Examples of motion with a predictable pattern could include a child swinging in a swing, a ball rolling back and forth in a bowl, and two children on a seesaw.] [*Assessment Boundary: Assessment does not include technical terms such as period and frequency*.] | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ3  L1 ([TE pp.158-163](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=172), [TB p.51](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=54))  L3 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=184), [TB pp.55-57](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=58))  L4 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=190), [TB pp.58-60](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=61))  L5 ([TE pp.182-189](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=196), [TB pp.61-64](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=64))  Key Resources  L1 **Everyday Swings** video  L2 **Models for a Theme Park** text  **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L7 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=290), [TB p.91](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=94))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |
| **SEP** | ***Connections to Nature of Science***  **Science Knowledge is Based on Empirical Evidence**   * Science findings are based on recognizing patterns. (3-PS2-2) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ3  L4 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=190), [TB pp.58-60](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=61))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |
| **DCI** | **PS2.A: Forces and Motion**   * The patterns of an object’s motion in various situations can be observed and measured; when that past motion exhibits a regular pattern, future motion can be predicted from it. (Boundary: Technical terms, such as magnitude, velocity, momentum, and vector quantity, are not introduced at this level, but the concept that some quantities need both size and direction to be described is developed.) (3-PS2-2) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ3  L1 ([TE pp.158-163](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=172), [TB p.51](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=54))  L3 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=184), [TB pp.55-57](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=58))  L4 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=190), [TB pp.58-60](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=61))  L5 ([TE pp.182-189](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=196), [TB pp.61-64](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=64))  **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L7 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=290), [TB p.91](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=94))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |
| **CCC** | **Patterns**   * Patterns of change can be used to make predictions. (3-PS2-2) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ3  L1 ([TE pp.158-163](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=172), [TB p.51](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=54))  L3 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=184), [TB pp.55-57](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=58))  L4 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=190), [TB pp.58-60](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=61))  L5 ([TE pp.182-189](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=196), [TB pp.61-64](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=64))  **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L7 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=290), [TB p.91](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=94))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **SEP** | **Asking Questions and Defining Problems**  Asking questions and defining problems in grades 3–5 builds on grades K–2 experiences and progresses to specifying qualitative relationships.   * Ask questions that can be investigated based on patterns such as cause and effect relationships. (3-PS2-3) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ4  L2 ([TE pp.208-215](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=222), [TB pp.70-71](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=73))  L3 ([TE pp.216-221](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=230), [TB pp.72-74](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=75))  **Grade 3 Module 1 Benchmark Assessment:  What are Magnetic Forces?** ([TE pp.288-292](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=302))  Key Resources  **Magnetite** Film | **3-PS2-3.**  **Ask questions to determine cause and effect relationships of electric or magnetic interactions magnetic interactions between two objects not in contact with each other.** [Clarification Statement: Examples of an electric force could include the force on hair from an electrically charged balloon and the electrical forces between a charged rod and pieces of paper; examples of a magnetic force could include the force between two permanent magnets, the force between an electromagnet and steel paperclips, and the force exerted by one magnet versus the force exerted by two magnets. Examples of cause and effect relationships could include how the distance between objects affects strength of the force and how the orientation of magnets affects the direction of the magnetic force.] *[Assessment Boundary: Assessment is limited to forces produced by objects that can be manipulated by students, and electrical interactions are limited to static electricity.]* | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ4  L1 ([TE pp.200-207](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=214), [TB p.69](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=72))  L2 ([TE pp.208-215](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=222), [TB pp.70-71](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=73))  L3 ([TE pp.216-221](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=230), [TB pp.72-74](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=75))  L4 ([TE pp.222-230](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=236), [TB pp.75-76](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=78))  **Grade 3 Module 1 Benchmark Assessment:  What are Magnetic Forces?** ([TE pp.288-292](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=302))  Key Resources  **Magnetite** Film  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |
| **DCI** | **PS2.B: Types of Interactions**   * Electric, and magnetic forces between a pair of objects do not require that the objects be in contact. The sizes of the forces in each situation depend on the properties of the objects and their distances apart and, for forces between two magnets, on their orientation relative to each other. (3-PS2-3) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ4  L1 ([TE pp.200-207](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=214), [TB p.69](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=72))  L2 ([TE pp.208-215](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=222), [TB pp.70-71](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=73))  L3 ([TE pp.216-221](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=230), [TB pp.72-74](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=75))  L4 ([TE pp.222-230](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=236), [TB pp.75-76](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=78))  **Grade 3 Module 1 Benchmark Assessment:  What are Magnetic Forces?** ([TE pp.288-292](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=302))  Key Resources  **Magnetite** Film  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |
| **CCC** | [**Cause and Effect**](http://www.nap.edu/openbook.php?record_id=13165&page=87)   * Cause and effect relationships are routinely identified, tested, and used to explain change. (3-PS2-3) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ4  L2 ([TE pp.208-215](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=222), [TB pp.70-71](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=73))  L3 ([TE pp.216-221](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=230), [TB pp.72-74](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=75))  L4 ([TE pp.222-230](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=236), [TB pp.75-76](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=78))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **SEP** | **Asking Questions and Defining Problems**   * Define a simple problem that can be solved through the development of a new or improved object or tool. (3-PS2-4) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L3 ([TE pp.250-255](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=264), [TB p.83](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=86))  L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92)) | **3-PS2-4.**  **Define a simple design problem that can be solved by applying scientific ideas about magnets.\*** [Clarification Statement: Examples of problems could include constructing a latch to keep a door shut and creating a device to keep two moving objects from touching each other.] | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L1 ([TE pp.238-243](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=252), [TB p.79](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=82))  L2 ([TE pp.244-249](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=258), [TB p.80-82](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=83))  L3 ([TE pp.250-255](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=264), [TB p.83](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=86))  L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  Chapters 2 and 3 ([LR pp.18-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=18)) |
| **DCI** | **PS2.B: Types of Interactions**   * Electric, and magnetic forces between a pair of objects do not require that the objects be in contact. The sizes of the forces in each situation depend on the properties of the objects and their distances apart and, for forces between two magnets, on their orientation relative to each other. (3-PS2-4) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L2 ([TE pp.244-249](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=258), [TB p.80-82](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=83))  L3 ([TE pp.250-255](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=264), [TB p.83](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=86))  L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |
| **CCC** | ***Connections to Engineering, Technology,***  ***and Applications of Science***  **Interdependence of Science, Engineering, and Technology**   * Scientific discoveries about the natural world can often lead to new and improved technologies, which are developed through the engineering design process. (3-PS2-4) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L1 ([TE pp.238-243](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=252), [TB p.79](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=82))  L2 ([TE pp.244-249](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=258), [TB p.80-82](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=83))  **Grade 3 Module 1**  **Leveled Reader: Roller Coaster Ride**  All chapters ([LR pp.4-34](https://resource.twigscience.com/book.html?id=005441830263aa759d507&authid=5UIwLBK5YXnu&cid=tsplatform&page=4)) |

**3–5-ETS1 Engineering Design**

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
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| **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) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L3 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=182), [TB pp.85-88](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=88))  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  L5 ([TE pp.180-185](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=194), [TB pp.93-95](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=96)) | **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.** | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L2 ([TE pp.244-249](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=258), [TB p.80-82](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=83))  L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L3 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=182), [TB pp.85-88](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=88))  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  L5 ([TE pp.180-185](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=194), [TB pp.93-95](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=96)) |
| **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) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L2 ([TE pp.244-249](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=258), [TB p.80-82](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=83))  L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  L5 ([TE pp.180-185](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=194), [TB pp.93-95](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=96)) |
| **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) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L2 ([TE pp.244-249](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=258), [TB p.80-82](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=83))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L3 ([TE pp.168-173](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=182), [TB pp.85-88](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=88))  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92)) |

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| **Science and Engineering Practices**  **Disciplinary Core Ideas**  **Crosscutting Concepts** | | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **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) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L2 ([TE pp.244-249](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=258), [TB p.80-82](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=83))  L7 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=290), [TB p.91](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=94))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92)) | **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.** | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L2 ([TE pp.244-249](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=258), [TB p.80-82](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=83))  L3 ([TE pp.250-255](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=264), [TB p.83](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=86))  L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  L7 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=290), [TB p.91](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=94))  L8 ([TE pp.282-287](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=296), [TB pp.92-94](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=95))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ2  L3 ([TE pp.70-77](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=84), [TB pp.31-32](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=34))  L8 ([TE pp.104-108](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=118), [TB pp.43-46](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=46))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  L5 ([TE pp.180-185](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=194), [TB pp.93-95](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=96)) |
| **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) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L2 ([TE pp.244-249](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=258), [TB p.80-82](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=83))  L3 ([TE pp.250-255](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=264), [TB p.83](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=86))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  L7 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=290), [TB p.91](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=94))  **Grade 3 Module 3**  **How To Survive an Ice Age**  M3\_DQ4  L3 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=005441830f082398bdc72&authid=0eNAQd95oyi8&cid=tsplatform&page=188), [TB pp.83-84](https://resource.twigscience.com/book.html?id=00544183034b6f594929d&authid=ySN3r8joNNA1&cid=tsplatform&page=86))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=92))  L5 ([TE pp.180-185](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=194), [TB pp.93-95](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&cid=tsplatform&page=96)) |
| **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) | **Grade 3 Module 1**  **The Ultimate Playground**  M1\_DQ5  L3 ([TE pp.250-255](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=264), [TB p.83](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=86))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  **Grade 3 Module 4**  **Weather Warning HQ**  M4\_DQ4  L4 ([TE pp.174-179](https://resource.twigscience.com/book.html?id=0054418303cfbdf7cff68&authid=Qm0qLf4WgidH&cid=tsplatform&page=188), [TB pp.89-92](https://resource.twigscience.com/book.html?id=0054418300c8b4f8de0d6&authid=5Wk88nS9eE8h&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.   * 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) | **Grade 3 Module 1 The Ultimate Playground** M1\_DQ3L3 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=184), [TB pp.55-57](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=58))  L4 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=190), [TB pp.58-60](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=61))  L5 ([TE pp.182-189](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=196), [TB pp.61-64](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=64)) L6 ([TE pp.190-194](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=204), [TB pp.65-66](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=68))  **Grade 3 Module 1 The Ultimate Playground** M1\_DQ5L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  L7 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=290), [TB p.91](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=94)) | **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.** | **Grade 3 Module 1 The Ultimate Playground** M1\_DQ3L3 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=184), [TB pp.55-57](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=58))  L4 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=190), [TB pp.58-60](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=61))  L5 ([TE pp.182-189](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=196), [TB pp.61-64](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=64))  L6 ([TE pp.190-194](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=204), [TB pp.65-66](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=68))  **Grade 3 Module 1 The Ultimate Playground** M1\_DQ5L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  L7 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=290), [TB p.91](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=94)) |
| **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) | **Grade 3 Module 1 The Ultimate Playground** M1\_DQ3L3 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=184), [TB pp.55-57](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=58))  L4 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=190), [TB pp.58-60](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=61))  L5 ([TE pp.182-189](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=196), [TB pp.61-64](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=64)) L6 ([TE pp.190-194](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=204), [TB pp.65-66](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=68))  **Grade 3 Module 1 The Ultimate Playground** M1\_DQ5L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  L7 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=290), [TB p.91](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=94)) |
| **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) | **Grade 3 Module 1 The Ultimate Playground** M1\_DQ3L3 ([TE pp.170-175](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=184), [TB pp.55-57](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=58))  L4 ([TE pp.176-181](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=190), [TB pp.58-60](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=61))  L5 ([TE pp.182-189](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=196), [TB pp.61-64](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=64)) L6 ([TE pp.190-194](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=204), [TB pp.65-66](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=68))  **Grade 3 Module 1 The Ultimate Playground** M1\_DQ5L5 ([TE pp.262-267](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=276), [TB pp.86-88](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=89))  L6 ([TE pp.268-275](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=282), [TB pp.89-90](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=92))  L7 ([TE pp.276-281](https://resource.twigscience.com/book.html?id=005441830d17f62d7139c&authid=9G3C1As6Zzgu&cid=tsplatform&page=290), [TB p.91](https://resource.twigscience.com/book.html?id=005441830e35aa4afaa18&authid=Sswxp4xqqeCw&cid=tsplatform&page=94)) |