**Standards Map for Kindergarten Through Grade Eight**

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

**K-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** | **Analyzing and Interpreting Data**Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.* Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (K-LS1-1)
 | **KEY:****M = Module** **DQ = Driving Question** **L = Lesson** **TE = Teacher Edition****TB = Student Edition known as the Twig Book****LR = Leveled Reader****EXAMPLE ONE****Grade K Module 1****My Big Nature Adventure** M1\_DQ2L2 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=58), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=18))L3 ([TE pp. 50–57](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=64), [TB p. 17](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=20))L4 ([TE pp. 58–65](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=72), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=21))L7 ([TE pp. 78–83](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=92), [TB pp. 23–25](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=26))L9 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=104), [TB pp. 28–30](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=31))Key ResourcesL3 **Rain** audio clip; **Looking for Plants: Rain** videoL4 **Looking for Plants: River** videoL7 **Looking for Plants: Cave** videoL9 **How Do Plants Survive?** video**EXAMPLE TWO****Grade K Module 1****My Big Nature Adventure** M1\_DQ3L3 ([TE pp. 124–129](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=138), [TB p. 46](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=49))L5 ([TE pp. 138–146](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=152), [TB pp. 49–50](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=52))Key ResourcesL3 **What Do Animals Eat?** videoL5 **Sharing Water** video;**What Do Animals Need?** quiz; **Human Wants and Needs Images** handout**EXAMPLE THREE****Grade K Module 1****My Big Nature Adventure**M1\_DQ4L1 ([TE pp. 152–157](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=166), [TB pp. 53–55](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=56))L2 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=172), [TB pp. 56–57](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=59))Key ResourcesL2 **Life Under a Rock** video; **Where Do Animals Live?** quiz**EXAMPLE FOUR****Grade K Module 1****My Big Nature Adventure**M1\_DQ5L1 ([TE pp. 186–193](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=200), [TB pp. 67–70](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=70))L2 ([TE pp. 194–201](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=208), [TB pp. 71–73](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=74))L3 ([TE pp. 202–209](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=216), [TB pp. 74–76](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=77))L4 ([TE pp. 210–215](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=224), [TB pp. 77–79](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=80))L5 ([TE pp. 216–223](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=230), [TB pp. 80–82](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=83))L6 ([TE pp. 224–229](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=238), [TB pp. 83–84](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=86))L7 ([TE pp. 230–234](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=244), [TB pp. 85–86](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=88))Key ResourcesL1 **Dung Beetle** video; **Adventure in the Desert** videoL3 **Adventure in a Grassland** video; **Agama Lizard** videoL5 **Who Lives Here?** Read-Aloud textL6 **Peregrine Falcon** video**EXAMPLE FIVE****Grade K Module 1****Leveled Reader: The Friendly Kakapo**All chapters ([LR 2–29](https://resource.twigscience.com/book.html?id=005441830b9c689a6dabd&authid=iv1z8q9GJy6D&cid=tsplatform))Associated lessons ([TE 256–271](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=256), [TB 99–105](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=102)) | **K-LS1-1.****Use observations to describe patterns of what planets and animals (including humans) need to survive.** [Clarification Statement: Examples of patterns could include that animals need to take in food but plants do not; the different kinds of food needed by different types of animals; the requirement of plants to have light; and that all living things need water.] | **KEY:****M = Module** **DQ = Driving Question** **L = Lesson** **TE = Teacher Edition****TB = Student Edition known as the Twig Book****LR = Leveled Reader****EXAMPLE ONE****Grade K Module 1****My Big Nature Adventure**M1\_DQ2L3 ([TE pp. 50–57](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=64), [TB p. 17](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=20))L4 ([TE pp. 58–65](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=72), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=21))L5 ([TE pp. 66–71](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=80), [TB p. 20](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=23))L6 ([TE pp. 72–77](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=86), [TB pp. 21–22](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=24))L7 ([TE pp. 78–83](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=92), [TB pp. 23–25](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=26))L8 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=98), [TB pp. 26–27](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=29))L9 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=104), [TB pp. 28–30](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=31))L10 ([TE pp. 96–102](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=110), [TB pp. 31–34](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=34))Key ResourcesL3 **Rain** audio clipL4 **Looking for Plants: Rain** video; 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|  | ***Connections to Nature of Science*****Scientific Knowledge is Based on Empirical Evidence** Scientists look for patterns and order when making observations about the world. (K-LS1-1) | **EXAMPLE ONE****Grade K Module 1****My Big Nature Adventure** M1\_DQ2L2 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=58), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=18))L9 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=104), [TB pp. 28–30](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=31))Key ResourcesL9 **How Do Plants Survive?** video**EXAMPLE TWO****Grade K Module 1****My Big Nature Adventure** M1\_DQ5L8 ([TE pp. 236–240](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=250), [TB pp. 87–88](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=90))**EXAMPLE THREE****Grade K Module 1****Leveled Reader: The Friendly Kakapo**Chapter 2 ([LR pp.14–21](https://resource.twigscience.com/book.html?id=005441830b9c689a6dabd&authid=iv1z8q9GJy6D&cid=tsplatform&page=16))Associated lesson ([TE pp. 247–252](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=261), [TB pp. 101–103](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=104))Chapter 3 ([LR pp. 22–29](https://resource.twigscience.com/book.html?id=005441830b9c689a6dabd&authid=iv1z8q9GJy6D&cid=tsplatform&page=24))Associated lesson ([TE pp. 253–257](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=267), [TB pp. 104–105](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=107)) |
| **DCI** | **LS1.C: Organization for Matter and Energy Flow in Organisms*** All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. (K-LS1-1)
 | **EXAMPLE ONE****Grade K Module 1****My Big Nature Adventure** M1\_DQ2L3 ([TE pp. 50–57](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=64), [TB p. 17](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=20))L4 ([TE pp. 58–65](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=72), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=21))L5 ([TE pp. 66–71](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=80), [TB p. 20](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=23))L6 ([TE pp. 72–77](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=86), [TB pp. 21–22](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=24))L7 ([TE pp. 78–83](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=92), [TB pp. 23–25](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=26))L8 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=98), [TB pp. 26–27](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=29))L9 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=104), [TB pp. 28–30](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=31))L10 ([TE pp. 96–102](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=110), [TB pp. 31–34](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=34))Key Resources L3 **Rain** audio clip; 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**What Do Animals Need?** quiz**EXAMPLE THREE****Grade K Module 1****My Big Nature Adventure** M1\_DQ4L1 ([TE pp. 152–157](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=166), [TB pp. 53–55](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=56))L2 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=172), [TB pp. 56–57](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=59))L4 ([TE pp. 172–178](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=186), [TB pp. 59–64](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=62))**EXAMPLE FOUR****Grade K Module 1****My Big Nature Adventure** M1\_DQ5L8 ([TE pp. 236–240](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=250), [TB pp. 87–88](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=90))**EXAMPLE FIVE****Grade K Module 1****Leveled Reader: The Friendly Kakapo**Chapter 1 ([LR pp. 2–13](https://resource.twigscience.com/book.html?id=005441830b9c689a6dabd&authid=iv1z8q9GJy6D&cid=tsplatform&page=4))Associated lesson ([TE pp. 242–246](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=256), [TB pp. 99–100](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=102)) |
| **CCC** | **Patterns** * Patterns in the natural and human designed world can be observed and used as evidence. (K-LS1-1)
 | **EXAMPLE ONE****Grade K Module 1****My Big Nature Adventure** M1\_DQ2L1 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=52), [TB pp. 13–14](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=16))L2 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=58), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=18))L4 ([TE pp. 58–65](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=72), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=21))L7 ([TE pp. 78–83](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=92), [TB pp. 23–25](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=26))L8 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=98), [TB pp. 26–27](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=29))L9 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=104), [TB pp. 28–30](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=31))L10 ([TE pp. 96–102](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=110), [TB pp. 31–34](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=34))**EXAMPLE TWO****Grade K Module 1****My Big Nature Adventure** M1\_DQ3L3 ([TE pp. 124–129](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=138), [TB p. 46](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=49))L5 ([TE pp. 138–146](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=152), [TB pp. 49–50](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=52))Key Resources L3 **What Do Animals Eat?** video,L5 **Sharing Water** video; **What Do Animals Need?** quiz**EXAMPLE THREE****Grade K Module 1****My Big Nature Adventure** M1\_DQ5L8 ([TE pp. 236–240](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=250), [TB pp. 87–88](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=90))**EXAMPLE FOUR****Grade K Module 1****Leveled Reader: The Friendly Kakapo**Chapter 1 ([LR pp. 2–13](https://resource.twigscience.com/book.html?id=005441830b9c689a6dabd&authid=iv1z8q9GJy6D&cid=tsplatform&page=4))Associated lesson ([TE pp. 242–246](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=256), [TB pp. 99–100](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=102))Chapter 3 ([LR pp. 22–29](https://resource.twigscience.com/book.html?id=005441830b9c689a6dabd&authid=iv1z8q9GJy6D&cid=tsplatform&page=24))Associated lesson ([TE pp. 253–257](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=267), [TB pp. 104–105](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=107)) |  |  |

California Department of Education

**K-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 K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.* Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (K-ESS2-1)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=28), [TB pp. 13–14](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=16))L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=46), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=21))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=70), [TB p. 27](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=30))Key ResourcesL2 **My Favorite Weather** Prior-Knowledge Read-Aloud text; **Weather Forecast** video; **Weather Symbols** visual; **Snow—Big Reveal** video**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ2L1 ([TE pp. 72–77](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=86), [TB pp. 31–32](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=34))L3 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=98), [TB pp. 34–37](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=37))Key ResourcesL1 **What Is the Weather Like?** video**EXAMPLE THREE****Grade K Module 3****Be Prepared**M3\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=128), [TB pp. 47–48](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=50))L2 ([TE pp. 120–124](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=134), [TB p. 49](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=52))L3 ([TE pp. 126–131](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=140), [TB pp. 50–52](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=53))L5 ([TE pp. 138–143](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=152), [TB pp. 55–56](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=58))L6 ([TE pp. 144–148](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=158), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=60))Key ResourcesL5 **Weather Data Sheet; Weather Table** visual; **Meteorologists** video **EXAMPLE FOUR****Grade K Module 3****Be Prepared**M3\_DQ4L2 ([TE pp. 160–165](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=174), [TB pp. 71–75](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=74))Key Resources L2 **Severe Weather** video; **Severe Weather Symbols** visual**EXAMPLE FIVE****Grade K Module 3****Leveled Reader: What’s the Weather?**Chapter 3 ([LR pp. 20–29](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform&page=24))Associated lesson ([TE pp. 192–197](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=206)) | **K-ESS2-1.****Use and share observations of local weather conditions to describe patterns over time.**[Clarification Statement: Examples of qualitative observations could include descriptions of the weather (such as sunny, cloudy, rainy, and warm); examples of quantitative observations could include numbers of sunny, windy, and rainy days in a month. Examples of patterns could include that it is usually cooler in the morning than in the afternoon and the number of sunny days versus cloudy days in different months.] [*Assessment Boundary: Assessment of quantitative observations is limited to whole numbers and relative measures such as warmer/cooler*.] | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=28), [TB pp. 13–14](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=16))Key ResourcesL2 **My Favorite Weather** Prior-Knowledge Read-Aloud text; **Weather Forecast** video; **Weather Symbols** visual; **Snow—Big Reveal** video**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ2L1 ([TE pp. 72–77](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=86), [TB pp. 31–32](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=34))L2 ([TE pp. 78–83](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=92), [TB p. 33](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=36))L3 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=98), [TB pp. 34–37](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=37))L4 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=104), [TB pp. 38–39](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=41))L5 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=110), [TB pp. 40–41](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=43))L6 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=116), [TB pp. 42–44](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=45))Key ResourcesL1 **What Is the Weather Like?** videoL2 **Weather Song** video (optional); **What Is the Weather Like?** video; **Kinds of Weather**  Read-Aloud text**EXAMPLE THREE****Grade K Module 3****Be Prepared**M3\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=128), [TB pp. 47–48](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=50))L2 ([TE pp. 120–124](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=134), [TB p. 49](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=52))L3 ([TE pp. 126–131](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=140), [TB pp. 50–52](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=53))L4 ([TE pp. 132–137](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=146), [TB pp. 53–54](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=56))L5 ([TE pp. 138–143](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=152), [TB pp. 55–56](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=58))L6 ([TE pp. 144–148](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=158), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=60))Key ResourcesL5 **Weather Data Sheet; Weather Table** visual; **Meteorologists** video**EXAMPLE FOUR****Grade K Module 3****Leveled Reader: What’s the Weather?**Chapter 2 ([LR pp.10–19](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform&page=16))Associated lesson ([TE pp. 186–191](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=200))Chapter 3 ([LR pp. 20–29](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform&page=24))Associated lesson ([TE pp. 192–197](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=206)) |
| **SEP** | ***Connections to Nature of Science*****Scientific Knowledge is Based on Empirical Evidence*** Scientists look for patterns and order when making observations about the world. (K-ESS2-1)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ2L4 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=104), [TB pp. 38–39](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=41))L5 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=110), [TB pp. 40–41](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=43))L6 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=116), [TB pp. 42–44](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=45))**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=128), [TB pp. 47–48](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=50))L2 ([TE pp. 120–124](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=134), [TB p. 49](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=52))L3 ([TE pp. 126–131](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=140), [TB pp. 50–52](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=53))L5 ([TE pp. 138–143](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=152), [TB pp. 55–56](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=58))L6 ([TE pp. 144–148](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=158), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=60))**EXAMPLE THREE****Grade K Module 3****Be Prepared**M3\_DQ4L1 ([TE pp. 154–159](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=168), [TB pp. 61–70](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=64))L2 ([TE pp. 160–165](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=174), [TB pp. 71–75](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=74))L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79)) |
| **DCI** | **ESS2.D: Weather and Climate*** Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. (K-ESS2-1)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=28), [TB pp. 13–14](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=16))Key ResourcesL2 **My Favorite Weather** Prior-Knowledge Read-Aloud text; **Weather Forecast** video**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ2L1 ([TE pp. 72–77](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=86), [TB pp. 31–32](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=34))L2 ([TE pp. 78–83](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=92), [TB p. 33](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=36))L3 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=98), [TB pp. 34–37](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=37))L4 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=104), [TB pp. 38–39](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=41))L5 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=110), [TB pp. 40–41](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=43))L6 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=116), [TB pp. 42–44](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=45))Key ResourcesL1 **What Is the Weather Like?** videoL2 **Kinds of Weather**  Read-Aloud text**EXAMPLE THREE****Grade K Module 3****Be Prepared**M3\_DQ3L2 ([TE pp. 120–124](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=134), [TB p. 49](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=52))L3 ([TE pp. 126–131](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=140), [TB pp. 50–52](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=53))L4 ([TE pp. 132–137](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=146), [TB pp. 53–54](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=56))L5 ([TE pp. 138–143](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=152), [TB pp. 55–56](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=58))L6 ([TE pp. 144–148](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=158), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=60))Key ResourcesL5 **Meteorologists** video**EXAMPLE FOUR****Grade K Module 3****Be Prepared**M3\_DQ4L1 ([TE pp. 154–159](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=168), [TB pp. 61–70](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=64))L2 ([TE pp. 160–165](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=174), [TB pp. 71–75](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=74))L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79))L4 ([TE pp. 172–177](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=186), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=80))**EXAMPLE FIVE****Grade K Module 3****Leveled Reader: What’s the Weather?**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform))Associated lessons ([TE pp. 180–197](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=194)) |
| **CCC** | **Patterns** * Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (K-ESS2-1)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=28), [TB pp. 13–14](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=16))L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=40), [TB p. 17](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=20))Key ResourcesL2 **My Favorite Weather** Prior- Knowledge Read-Aloud text; **Weather Forecast** video**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ2L1 ([TE pp. 72–77](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=86), [TB pp. 31–32](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=34))L2 ([TE pp. 78–83](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=92), [TB p. 33](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=36))L3 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=98), [TB pp. 34–37](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=37))L4 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=104), [TB pp. 38–39](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=41))L5 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=110), [TB pp. 40–41](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=43))L6 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=116), [TB pp. 42–44](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=45))Key ResourcesL1 **What Is the Weather Like?** videoL2 **Kinds of Weather**  Read-Aloud text**EXAMPLE THREE****Grade K Module 3****Be Prepared**M3\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=128), [TB pp. 47–48](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=50))L2 ([TE pp. 120–124](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=134), [TB p. 49](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=52))L3 ([TE pp. 126–131](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=140), [TB pp. 50–52](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=53))L4 ([TE pp. 132–137](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=146), [TB pp. 53–54](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=56))L5 ([TE pp. 138–143](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=152), [TB pp. 55–56](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=58))L6 ([TE pp. 144–148](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=158), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=60))Key ResourcesL5 **Meteorologists** video**EXAMPLE FOUR****Grade K Module 3****Leveled Reader: What’s the Weather?**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform)) Associated lessons ([TE pp. 180–197](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=194)) |

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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 K–2 builds on prior experiences and progresses to comparing ideas and representations about the natural and designed world(s).* Construct an argument with evidence to support a claim. (K-ESS2-2)
 | **EXAMPLE ONE****Grade K Module 4****I Can**M4\_DQ1L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=70), [TB pp. 19–26](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=22))Key ResourcesL9 **Beaver Builders** video; **Beaver Claims** Read-Aloud text**EXAMPLE TWO****Grade K Module 4****I Can**M4\_DQ2L1 ([TE pp. 72–77](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=86), [TB p. 31](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=34))L4 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=104), [TB p. 36](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=39))Key ResourcesL4 **Leaf Litter** video; **Leaf System** visual**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=128), [TB pp. 49–50](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=52))L2 ([TE pp. 120–125](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=134), [TB pp. 51–53](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=54))L4 ([TE pp. 134–139](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=148), [TB p. 56](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=59))Key Resources L2 **How Is Paper Made?** video**EXAMPLE FOUR****Grade K Module 4****Leveled Reader: Animal Builders**Chapter 3 ([LR pp. 22–29](https://resource.twigscience.com/book.html?id=005441830e0c207f329a0&authid=gAxUg22tD8zz&cid=tsplatform&page=24))Associated lesson ([TE pp. 216–221](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=230), [TB pp. 86–87](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=89)) | **K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.** [Clarification Statement: Examples of plants and animals changing their environment could include how a squirrel digs in the ground to hide its food and tree roots can break concrete.] | **EXAMPLE ONE****Grade K Module 4****I Can**M4\_DQ1L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=40), [TB pp. 11–12](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=14))L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=46), [TB pp. 13–14](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=16))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=52), [TB p. 15](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=18))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=58), [TB pp. 16–17](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=19))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=64), [TB p. 18](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=21))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=70), [TB pp. 19–26](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=22))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=76), [TB pp. 27–28](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=30))Key ResourcesL4 **Earthworm Tunneling** videoL5 **A Day in the Life of an Earthworm** videoL7 **Beaver—Jigsaw Puzzle** video; **It’s a Beaver!** videoL9 **Beaver Builders** video; **Beaver Claims** Read-Aloud textL10 **Animals Can Change their Environment** video**EXAMPLE TWO****Grade K Module 4****I Can**M4\_DQ2L2 ([TE pp. 78–83](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=92), [TB pp. 32–34](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=35))L3 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=98), [TB p. 35](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=38))L4 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=104), [TB p. 36](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=39))L5 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=110), [TB pp. 37–44](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=40))L6 ([TE pp. 102–106](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=116), [TB pp. 45–46](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=48))Key ResourcesL4 **Leaf Litter** video; **Leaf System** visualL5 **Roots—Big Reveal** video; **Tree Roots** visual; **Roots Refrain** visual; **Roots, Good or Bad?** Read-Aloud text**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=128), [TB pp. 49–50](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=52))L2 ([TE pp. 120–125](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=134), [TB pp. 51–53](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=54))L3 ([TE pp. 126–132](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=140), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=57))L4 ([TE pp. 134–139](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=148), [TB p. 56](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=59))L5 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=154), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=60))L6 ([TE pp. 146–150](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=160), [TB pp. 59–60](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=62))Key Resources L2 **How Is Paper Made?** videoL3 **Deforestation** visual; **Disappearing Forests** videoL5 **Irrigation** video**EXAMPLE FOUR****Grade K Module 4****Leveled Reader: Animal Builders**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=005441830e0c207f329a0&authid=gAxUg22tD8zz&cid=tsplatform))Associated lessons ([TE pp. 204–221](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=218), [TB pp. 81–87](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=84)) |
| **DCI** | **ESS2.E: Biogeology*** Plants and animals can change their environment. (K-ESS2-2)
 | **EXAMPLE ONE****Grade K Module 4****I Can**M4\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=22), [TB pp. 3–8](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=6))L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=28), [TB p. 9](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=12))L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=34), [TB p. 10](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=13))L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=40), [TB pp. 11–12](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=14))L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=46), [TB pp. 13–14](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=16))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=52), [TB p. 15](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=18))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=58), [TB pp. 16–17](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=19))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=64), [TB p. 18](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=21))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=70), [TB pp. 19–26](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=22))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=76), [TB pp. 27–28](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=30))Key ResourcesL4 **Earthworm Tunneling** videoL5 **A Day in the Life of an Earthworm** videoL7 **Beaver—Jigsaw Puzzle** video; 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**Leaf System** visualL5 **Roots—Big Reveal** video; **Tree Roots** visual; **Roots Refrain** visual; **Roots, Good or Bad?** Read-Aloud text**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=128), [TB pp. 49–50](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=52))L2 ([TE pp. 120–125](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=134), [TB pp. 51–53](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=54))L3 ([TE pp. 126–132](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=140), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=57))L4 ([TE pp. 134–139](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=148), [TB p. 56](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=59))L5 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=154), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=60))L6 ([TE pp. 146–150](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=160), [TB pp. 59–60](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=62))Key ResourcesL2 **How Is Paper Made?** videoL3 **Deforestation** visual; **Disappearing Forests** videoL5 **Irrigation** video |
| **DCI** | **ESS3.C: Human Impacts on Earth Systems*** Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (secondary to K-ESS2-2)
 | **EXAMPLE ONE****Grade K Module 4****I Can**M4\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=128), [TB pp. 49–50](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=52))L2 ([TE pp. 120–125](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=134), [TB pp. 51–53](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=54))L3 ([TE pp. 126–132](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=140), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=57))L4 ([TE pp. 134–139](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=148), [TB p. 56](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=59))L5 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=154), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=60))L6 ([TE pp. 146–150](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=160), [TB pp. 59–60](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=62))Key ResourcesL2 **How Is Paper Made?** videoL3 **Deforestation** visual; **Disappearing Forests** videoL5 **Irrigation** video**EXAMPLE TWO****Grade K Module 4****I Can**M4\_DQ4L1 ([TE pp. 156–161](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=170), [TB p. 63](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=66))L2 ([TE pp. 162–167](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=176), [TB pp. 64–66](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=67))L3 ([TE pp. 168–173](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=182), [TB pp. 67–68](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=70))L4 ([TE pp. 174–178](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=188), [TB pp. 69–70](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=72))Key ResourcesL2 **Recycled Object** visual; **Reduce, Reuse, Recycle** video; **Reduce, Reuse, Recycle Snap** game**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ5L1 ([TE pp. 184–189](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=198), [TB pp. 73–76](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=76))L2 ([TE pp. 190–193](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=204), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=80))L3 ([TE pp. 194–197](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=208), [TB p. 79](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=82))L4 ([TE pp. 198–202](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=212), [TB p. 80](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=83))Key Resources L1 **I Can** text ([TB pp. 73–76](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=76)) |
| **CCC** | **Systems and System Models*** Systems in the natural and designed world have parts that work together. (K-ESS2-2)
 | **EXAMPLE ONE****Grade K Module 4****I Can**M4\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=22), [TB pp. 3–8](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=6))L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=28), [TB p. 9](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=12))L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=34), [TB p. 10](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=13))L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=40), [TB pp. 11–12](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=14))L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=46), [TB pp. 13–14](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=16))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=64), [TB p. 18](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=21))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=70), [TB pp. 19–26](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=22))**EXAMPLE TWO****Grade K Module 4****I Can**M4\_DQ2L1 ([TE pp. 72–77](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=86), [TB p. 31](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=34))L3 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=98), [TB p. 35](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=38))L4 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=104), [TB p. 36](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=39))L5 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=110), [TB pp. 37–44](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=40))L6 ([TE pp. 102–106](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=116), [TB pp. 45–46](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=48))**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=128), [TB pp. 49–50](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=52))L2 ([TE pp. 120–125](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=134), [TB pp. 51–53](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=54))L3 ([TE pp. 126–132](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=140), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=57))L4 ([TE pp. 134–139](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=148), [TB p. 56](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=59))L5 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=154), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=60))L6 ([TE pp. 146–150](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=160), [TB pp. 59–60](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=62))Key ResourcesL5 **Irrigation** video |

**K-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** | **Developing and Using Models**Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, storyboard) that represent concrete events or design solutions.* Use a model to represent relationships in the natural world. (K-ESS3-1)
 | **EXAMPLE ONE****Grade K Module 1****My Big Nature Adventure** M1\_DQ4L2 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=172), [TB pp. 56–57](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=59))Key Resources L2 **Life Under a Rock** video**EXAMPLE TWO****Grade K Module 1****My Big Nature Adventure**M1\_DQ5L2 ([TE pp. 194–201](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=208), [TB pp. 71–73](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=74))L4 ([TE pp. 210–215](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=224), [TB pp. 77–79](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=80))L6 ([TE pp. 224–229](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=238), [TB pp. 83–84](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=86))L8 ([TE pp. 236–240](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=250), [TB pp. 87–88](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=90))Key ResourcesL5 **Who Lives Here?** Read-Aloud textL6 **Peregrine Falcon** video | **K-ESS3-1.****Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.** [Clarification Statement: Examples of relationships could include that deer eat buds and leaves, therefore, they usually live in forested areas; and grasses need sunlight so they often grow in meadows. Plants, animals, and their surroundings make up a system.] | **EXAMPLE ONE****Grade K Module 1****My Big Nature Adventure** M1\_DQ4L2 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=172), [TB pp. 56–57](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=59))L3 ([TE pp. 164–171](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=178), [TB p. 58](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=61))Key Resources L2 **Life Under a Rock** videoL3 **Damselfly** video**EXAMPLE TWO****Grade K Module 1****My Big Nature Adventure**M1\_DQ5L1 ([TE pp. 186–193](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=200), [TB pp. 67–70](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=70))L2 ([TE pp. 194–201](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=208), [TB pp. 71–73](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=74))L3 ([TE pp. 202–209](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=216), [TB pp. 74–76](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=77))L4 ([TE pp. 210–215](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=224), [TB pp. 77–79](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=80))L5 ([TE pp. 216–223](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=230), [TB pp. 80–82](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=83))L6 ([TE pp. 224–229](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=238), [TB pp. 83–84](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=86))L7 ([TE pp. 230–234](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=244), [TB pp. 85–86](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=88))L8 ([TE pp. 236–240](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=250), [TB pp. 87–88](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=90))Key ResourcesL1 **Dung Beetle** video; **Adventure in the Desert** videoL3 **Adventure in a Grassland** video: **Agama Lizard** videoL5 **Who Lives Here?** Read-Aloud textL6 **Peregrine Falcon** video**EXAMPLE THREE****Grade K Module 1****Leveled Reader:** **The Friendly Kakapo**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=005441830b9c689a6dabd&authid=iv1z8q9GJy6D&cid=tsplatform)Associated lessons ([TE pp. 242–257](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=256), [TB 99–105](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=102)) |
| **DCI** | **ESS3.A: Natural Resources*** Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1)
 | **EXAMPLE ONE****Grade K Module 1****My Big Nature Adventure** M1\_DQ4L2 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=172), [TB pp. 56–57](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=59))L3 ([TE pp. 164–171](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=178), [TB p. 58](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=61))Key ResourcesL2 **Life Under a Rock** videoL3 **Damselfly** video**EXAMPLE TWO****Grade K Module 1****My Big Nature Adventure**M1\_DQ5L1 ([TE pp. 186–193](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=200), [TB pp. 67–70](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=70))L2 ([TE pp. 194–201](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=208), [TB pp. 71–73](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=74))L3 ([TE pp. 202–209](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=216), [TB pp. 74–76](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=77))L4 ([TE pp. 210–215](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=224), [TB pp. 77–79](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=80))L5 ([TE pp. 216–223](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=230), [TB pp. 80–82](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=83))L6 ([TE pp. 224–229](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=238), [TB pp. 83–84](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=86))L7 ([TE pp. 230–234](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=244), [TB pp. 85–86](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=88))L8 ([TE pp. 236–240](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=250), [TB pp. 87–88](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=90))Key ResourcesL1 **Dung Beetle** video; **Adventure in the Desert** videoL3 **Adventure in a Grassland** video; **Agama Lizard** videoL5 **Who Lives Here?** Read-Aloud textL6 **Peregrine Falcon** video**EXAMPLE THREE****Grade K Module 1****Leveled Reader:** **The Friendly Kakapo**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=005441830b9c689a6dabd&authid=iv1z8q9GJy6D&cid=tsplatform))Associated lessons ([TE pp. 242–257](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=256), [TB 99–105](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=102)) |
| **CCC** | **Systems and System Models*** Systems in the natural and designed world have parts that work together. (K-ESS3-1)
 | **EXAMPLE ONE****Grade K Module 1****My Big Nature Adventure**M1\_DQ4L2 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=172), [TB pp. 56–57](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=59))L3 ([TE pp. 164–171](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=178), [TB p. 58](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=61))L4 ([TE pp. 172–178](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=186), [TB pp. 59–64](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=62))**EXAMPLE TWO****Grade K Module 1****My Big Nature Adventure**M1\_DQ5L1 ([TE pp. 186–193](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=200), [TB pp. 67–70](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=70))L2 ([TE pp. 194–201](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=208), [TB pp. 71–73](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=74))L3 ([TE pp. 202–209](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=216), [TB pp. 74–76](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=77))L4 ([TE pp. 210–215](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=224), [TB pp. 77–79](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=80))L5 ([TE pp. 216–223](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=230), [TB pp. 80–82](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=83))L6 ([TE pp. 224–229](https://resource.twigscience.com/book.html?id=0054418309bec0bb49807&authid=NfW2A6KS6Krp&cid=tsplatform&page=238), [TB pp. 83–84](https://resource.twigscience.com/book.html?id=005441830979b73622a55&authid=325AFXY555HE&cid=tsplatform&page=86)) |

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| **Science and Engineering Practices****Disciplinary Core Ideas****Crosscutting Concepts** | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Asking Questions and Defining Problems**Asking questions and defining problems in grades K–2 builds on prior experiences and progresses to simple descriptive questions that can be tested.* Ask questions based on observations to find more information about the designed world. (K-ESS3-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ4L2 ([TE pp. 160–165](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=174), [TB pp. 71–75](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=74))L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79))L4 ([TE pp. 172–177](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=186), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=80))Key Resources L3 **Blizzard** visual**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ3L2 ([TE pp. 120–124](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=134), [TB p. 49](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=52))L5 ([TE pp. 138–143](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=152), [TB pp. 55–56](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=58)) | **K-ESS3-2.****Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.\*** [Clarification Statement: Emphasis is on local forms of severe weather.] | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ2L4 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=104), [TB pp. 38–39](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=41))L5 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=110), [TB pp. 40–41](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=43))L6 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=116), [TB pp. 42–44](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=45))**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ3L2 ([TE pp. 120–124](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=134), [TB p. 49](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=52))L3 ([TE pp. 126–131](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=140), [TB pp. 50–52](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=53))L5 ([TE pp. 138–143](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=152), [TB pp. 55–56](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=58))Key ResourcesL3 **Weather Data** visualL5 **Meteorologists** video**EXAMPLE THREE****Grade K Module 3****Be Prepared**M3\_DQ4L1 ([TE pp. 154–159](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=168), [TB pp. 61–70](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=64))L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79))L4 ([TE pp. 172–177](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=186), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=80))Key Resources L1 **Minneapolis Weather Forecast** visualL3 **Blizzard** visual**EXAMPLE FOUR****Grade K Module 3****Leveled Reader: What’s the Weather?**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform))Associated lessons ([TE pp. 180–197](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=194)) |
| **SEP** | **Obtaining, Evaluating, and Communicating Information**Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.* Read grade-appropriate texts and/or use media to obtain scientific information to describe patterns in the natural world. (K-ESS3-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ2L2 ([TE pp. 78–83](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=92), [TB p. 33](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=36))L3 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=98), [TB pp. 34–37](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=37))L4 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=104), [TB pp. 38–39](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=41))L5 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=110), [TB pp. 40–41](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=43))L6 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=116), [TB pp. 42–44](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=45))Key Resources L2 **Kinds of Weather** Read-Aloud text**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ1L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=76), [TB p. 28](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=31))Key Resources L10 **Under My Umbrella**  Read-Aloud text**EXAMPLE THREE****Grade K Module 3****Be Prepared**M3\_DQ3L4 ([TE pp. 132–137](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=146), [TB pp. 53–54](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=56))**EXAMPLE FOUR****Grade K Module 3****Be Prepared**M3\_DQ4L1 ([TE pp. 154–159](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=168), [TB pp. 61–70](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=64))L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79))L4 ([TE pp. 172–177](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=186), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=80))Key Resources L3 **Predicting and Preparing for the Weather** Read-Aloud text |
| **DCI** | **ESS3.B: Natural Hazards*** Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events. (K-ESS3-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ4L2 ([TE pp. 160–165](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=174), [TB pp. 71–75](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=74))L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79))L4 ([TE pp. 172–177](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=186), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=80))Key ResourcesL2 **Severe Weather** video; **Severe Weather Symbols** visualL3 **Predicting and Preparing for the Weather** Read-Aloud text**EXAMPLE TWO****Grade K Module 3****Leveled Reader: What’s the Weather?**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform))Associated lessons ([TE pp. 180–197](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=194)) |
| **DCI** | **ETS1.A: Defining and Delimiting an Engineering Problem*** Asking questions, making observations, and gathering information are helpful in thinking about problems. (secondary to K-ESS3-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=40), [TB p. 17](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=20))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))Key ResourcesL1 **Weather** visual; **Be Prepared** video; **Weather Song** videoL4 **Where Does Rain Come From?** video |
| **CCC** | **Cause and Effect** * Events have causes that generate observable patterns. (K-ESS3-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=46), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=21))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ4L1 ([TE pp. 154–159](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=168), [TB pp. 61–70](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=64))L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79))L4 ([TE pp. 172–177](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=186), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=80))**EXAMPLE THREE****Grade K Module 3****Leveled Reader: What’s the Weather?**Chapter 3 ([LR pp. 20–29](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform&page=24))Associated lesson ([TE pp. 192–197](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=206)) |
| **CCC** | ***Connections to Engineering, Technology, and Applications of Science*****Interdependence of Science, Engineering, and Technology*** People encounter questions about the natural world every day. (K-ESS3-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))Key ResourcesL1 **Umbrellas** handout; **Weather** visual; **Be Prepared Trailer** video; **Weather Song** video**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ4L2 ([TE pp. 160–165](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=174), [TB pp. 71–75](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=74))L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79))L4 ([TE pp. 172–177](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=186), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=80))L2 **Severe Weather** video; **Severe Weather Symbols** visualL3 **Predicting and Preparing for the Weather** Read-Aloud text |
| **CCC** | ***Connections to Engineering, Technology, and Applications of Science*****Influence of Engineering, Technology, and Science on Society and the Natural World** * People depend on various technologies in their lives; human life would be very different without technology. (K-ESS3-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))Key ResourcesL1 **Umbrellas** handout; **Weather** visual; **Be Prepared Trailer** video; **Weather Song** video**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ4L2 ([TE pp. 160–165](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=174), [TB pp. 71–75](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=74))L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79))L4 ([TE pp. 172–177](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=186), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=80))Key ResourcesL2 **Severe Weather** video; **Severe Weather Symbols** visualL3 **Predicting and Preparing for the Weather** Read-Aloud text |

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| **Science and Engineering Practices****Disciplinary Core Ideas****Crosscutting Concepts** | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Obtaining, Evaluating, and Communicating Information**Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.* Communicate solutions with others in oral and/or written forms using models and/or drawings that provide detail about scientific ideas. (K-ESS3-3)
 | **EXAMPLE ONE****Grade K Module 4****I Can**M4\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=128), [TB pp. 49–50](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=52))L3 ([TE pp. 126–132](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=140), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=57))L6 ([TE pp. 146–150](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=160), [TB pp. 59–60](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=62))L3 **Deforestation** visual; **Disappearing Forests** video**EXAMPLE TWO****Grade K Module 4****I Can**M4\_DQ4L1 ([TE pp. 156–161](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=170), [TB p. 63](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=66))L2 ([TE pp. 162–167](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=176), [TB pp. 64–66](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=67))L3 ([TE pp. 168–173](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=182), [TB pp. 67–68](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=70))L4 ([TE pp. 174–178](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=188), [TB pp. 69–70](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=72))Key ResourcesL2 **Recycled Object** visual; **Reduce, Reuse, Recycle** video; **Reduce, Reuse, Recycle Snap**game**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ5L1 ([TE pp. 184–189](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=198), [TB pp. 73–76](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=76))L3 ([TE pp. 194–197](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=208), [TB p. 79](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=82))L4 ([TE pp. 198–202](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=212), [TB p. 80](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=83)) | **K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.\*** [Clarification Statement: Examples of human impact on the land could include cutting trees to produce paper and using resources to produce bottles. Examples of solutions could include reusing paper and recycling cans and bottles.] | **EXAMPLE ONE****Grade K Module 4****I Can**M4\_DQ3L5 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=154), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=60))Key Resources L5 **Irrigation** video**EXAMPLE TWO****Grade K Module 4****I Can**M4\_DQ4L1 ([TE pp. 156–161](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=170), [TB p. 63](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=66))L2 ([TE pp. 162–167](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=176), [TB pp. 64–66](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=67))L3 ([TE pp. 168–173](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=182), [TB pp. 67–68](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=70))L4 ([TE pp. 174–178](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=188), [TB pp. 69–70](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=72))Key Resources L2 **Recycled Object** visual; **Reduce, Reuse, Recycle** video; **Reduce, Reuse, Recycle Snap**game **EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ5L1 ([TE pp. 184–189](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=198), [TB pp. 73–76](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=76))L2 ([TE pp. 190–193](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=204), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=80))L3 ([TE pp. 194–197](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=208), [TB p. 79](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=82))L4 ([TE pp. 198–202](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=212), [TB p. 80](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=83)) |
| **DCI** | **ESS3.C: Human Impacts on Earth Systems*** Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (K-ESS3-3)
 | **EXAMPLE ONE****Grade K Module 4****I Can**M4\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=128), [TB pp. 49–50](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=52))L2 ([TE pp. 120–125](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=134), [TB pp. 51–53](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=54))L3 ([TE pp. 126–132](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=140), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=57))L4 ([TE pp. 134–139](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=148), [TB p. 56](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=59))L5 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=154), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=60))L6 ([TE pp. 146–150](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=160), [TB pp. 59–60](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=62))Key ResourcesL5 **Irrigation** video**EXAMPLE TWO****Grade K Module 4****I Can**M4\_DQ4L1 ([TE pp. 156–161](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=170), [TB p. 63](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=66))L2 ([TE pp. 162–167](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=176), [TB pp. 64–66](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=67))L3 ([TE pp. 168–173](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=182), [TB pp. 67–68](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=70))L4 ([TE pp. 174–178](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=188), [TB pp. 69–70](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=72))Key Resources L2 **Recycled Object** visual; **Reduce, Reuse, Recycle** video; **Reduce, Reuse, Recycle Snap** game**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ5L1 ([TE pp. 184–189](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=198), [TB pp. 73–76](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=76))L2 ([TE pp. 190–193](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=204), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=80))L3 ([TE pp. 194–197](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=208), [TB p. 79](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=82))L4 ([TE pp. 198–202](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=212), [TB p. 80](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=83)) |
|  | **ETS1.B: Developing Possible Solutions*** Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem’s solutions to other people. (secondary to K-ESS3-3)
 | **EXAMPLE ONE****Grade K Module 4****I Can**M4\_DQ3L5 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=154), [TB pp. 57–58](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=60))Key ResourcesL5 **Irrigation** video**EXAMPLE TWO****Grade K Module 4****I Can**M4\_DQ4L4 ([TE pp. 174–178](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=188), [TB pp. 69–70](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=72))**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ5L1 ([TE pp. 184–189](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=198), [TB pp. 73–76](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=76))L2 ([TE pp. 190–193](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=204), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=80))L3 ([TE pp. 194–197](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=208), [TB p. 79](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=82))L4 ([TE pp. 198–202](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=212), [TB p. 80](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=83))**EXAMPLE FOUR****Grade K Module 3****Leveled Reader: What’s the Weather?**Chapter 2 ([LR pp.14–21](https://resource.twigscience.com/book.html?id=005441830e0c207f329a0&authid=gAxUg22tD8zz&cid=tsplatform&page=16))Associated lesson ([TE pp. 210–215](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=224), [TB pp. 83–85](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=86))Chapter 3 ([LR pp. 22–29](https://resource.twigscience.com/book.html?id=005441830e0c207f329a0&authid=gAxUg22tD8zz&cid=tsplatform&page=24))Associated lesson ([TE pp. 216–221](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=230), [TB pp. 86–87](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=89)) |
| **CCC** | **Cause and Effect** * Events have causes that generate observable patterns. (K-ESS3-3)
 | **EXAMPLE ONE****Grade K Module 4****I Can**M4\_DQ4L2 ([TE pp. 162–167](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=176), [TB pp. 64–66](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=67))L3 ([TE pp. 168–173](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=182), [TB pp. 67–68](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=70))L4 ([TE pp. 174–178](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=188), [TB pp. 69–70](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=72))**EXAMPLE TWO****Grade K Module 4****I Can**M4\_DQ1L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=46), [TB pp. 13–14](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=16))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=52), [TB p. 15](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=18))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=58), [TB pp. 16–17](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=19))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=76), [TB pp. 27–28](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=30))Key ResourcesL5 **A Day in the Life of an****Earthworm** videoL7 **Beaver—Jigsaw Puzzle** video; **It’s a Beaver!** videoL10 **Animals Can Change their Environment** video**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ2L2 ([TE pp. 78–83](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=92), [TB pp. 32–34](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=35))**EXAMPLE FOUR****Grade K Module 4****I Can**M4\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=128), [TB pp. 49–50](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=52))L6 ([TE pp. 146–150](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=160), [TB pp. 59–60](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=62)) |

**K-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** |
|
| **SEP** | **Planning and Carrying Out Investigations**Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. * With guidance, plan and conduct an investigation in collaboration with peers. (K-PS2-1)
 | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer** M2\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=22), [TB pp. 3–4](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=6))L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=28), [TB pp. 5–6](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=8))L3 ([TE pp. 20–27](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=34), [TB pp. 7–10](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=10))L4 ([TE pp. 28–35](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=42), [TB p. 11](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=14))L5 ([TE pp. 36–41](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=50), [TB pp. 12–14](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=15))L8 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=70), [TB pp. 21–22](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=24))**EXAMPLE TWO****Grade K Module 2****Marble Run Engineer** M2\_DQ2L1 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=98), [TB pp. 33–34](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=36))L2 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=104), [TB p. 35](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=38))L4 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=116), [TB p. 37](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L5 ([TE pp. 108–114](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=122), [TB pp. 39–42](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L6 ([TE pp. 116–121](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=130), [TB pp. 43–45](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=46))**EXAMPLE FOUR****Grade K Module 2****Marble Run Engineer** M2\_DQ3L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56)) | **K-PS2-1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.**[Clarification Statement: Examples of pushes or pulls could include a string attached to an object being pulled, a person pushing an object, a person stopping a rolling ball, and two objects colliding and pushing on each other.] [*Assessment Boundary: Assessment is limited to different relative strengths or different directions, but not both at the same time. Assessment does not include non-contact pushes or pulls such as those produced by magnets.*] | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer** M2\_DQ1L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=28), [TB pp. 5–6](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=8))L3 ([TE pp. 20–27](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=34), [TB pp. 7–10](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=10))L4 ([TE pp. 28–35](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=42), [TB p. 11](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=14))L5 ([TE pp. 36–41](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=50), [TB pp. 12–14](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=15))L6 ([TE pp. 42–47](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=56), [TB pp. 15–17](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=18))Key ResourcesL2 **Let’s Move!** Prior-KnowledgeRead-Aloud textL3 **The Push and Pull Song** video; **What Makes Things Move?** videoL4 **Exploring Forces** videoL6 **Pushes and Pulls—Odd One Out** video**EXAMPLE TWO****Grade K Module 2****Marble Run Engineer** M2\_DQ2L1 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=98), [TB pp. 33–34](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=36))L2 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=104), [TB p. 35](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=38))L3 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=110), [TB p. 36](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=39))L4 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=116), [TB p. 37](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L5 ([TE pp. 108–114](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=122), [TB pp. 39–42](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L6 ([TE pp. 116–121](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=130), [TB pp. 43–45](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=46))Key ResourcesL2 **Engineering: Jetpack** video; **Follow the Marble** gameL4 **Speed** video**EXAMPLE THREE****Grade K Module 2****Marble Run Engineer** M2\_DQ3L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))Key ResourcesL5 **The Challenge** visual; **Engineer Design Steps** visual |
| **SEP** | ***Connections to the Nature of Science*****Scientific Investigations Use a Variety of Methods*** Scientists use different ways to study the world. (K-PS2-1)
 | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer** M2\_DQ2L1 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=98), [TB pp. 33–34](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=36))L4 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=116), [TB p. 37](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))Key Resources L4 **Speed** video |
| **DCI** | **PS2.A: Forces and Motion*** Pushes and pulls can have different strengths and directions. (K-PS2-1)
* Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. (K-PS2-1)
 | **EXAMPLE ONE** (for bullet point 1)**Grade K Module 2****Marble Run Engineer**M2\_DQ1L3 ([TE pp. 20–27](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=34), [TB pp. 7–10](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=10))L4 ([TE pp. 28–35](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=42), [TB p. 11](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=14))L5 ([TE pp. 36–41](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=50), [TB pp. 12–14](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=15))L6 ([TE pp. 42–47](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=56), [TB pp. 15–17](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=18))L7 ([TE pp. 48–55](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=62), [TB pp. 18–20](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=21))L8 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=70), [TB pp. 21–22](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=24))L9 ([TE pp. 62–69](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=76), [TB pp. 23–28](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=26))L10 ([TE pp. 70–75](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=84), [TB pp. 29–30](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=32))Key ResourcesL2 **Let’s Move!** Prior-KnowledgeRead-Aloud textL3 **The Push and Pull Song** video; **What Makes Things Move?** videoL4 **Exploring Forces** videoL6 **Pushes and Pulls—Odd One Out** video**EXAMPLE TWO**(for bullet point 1)**Grade K Module 2****Marble Run Engineer** M2\_DQ2L2 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=104), [TB p. 35](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=38))L3 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=110), [TB p. 36](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=39))L4 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=116), [TB p. 37](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L5 ([TE pp. 108–114](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=122), [TB pp. 39–42](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L6 ([TE pp. 116–121](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=130), [TB pp. 43–45](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=46))L7 ([TE pp. 122–126](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=136), [TB p. 46](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=49))**EXAMPLE THREE**(for bullet point 1)**Grade K Module 2****Marble Run Engineer** M2\_DQ3L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))**EXAMPLE FOUR**(for bullet point 2)**Grade K Module 2****Marble Run Engineer** M2\_DQ1L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=28), [TB pp. 5–6](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=8))L3 ([TE pp. 20–27](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=34), [TB pp. 7–10](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=10))L4 ([TE pp. 28–35](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=42), [TB p. 11](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=14))L5 ([TE pp. 36–41](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=50), [TB pp. 12–14](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=15))L6 ([TE pp. 42–47](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=56), [TB pp. 15–17](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=18))L7 ([TE pp. 48–55](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=62), [TB pp. 18–20](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=21))L8 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=70), [TB pp. 21–22](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=24))L9 ([TE pp. 62–69](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=76), [TB pp. 23–28](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=26))L10 ([TE pp. 70–75](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=84), [TB pp. 29–30](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=32))**EXAMPLE FIVE**(for bullet point 2)**Grade K Module 2****Marble Run Engineer** M2\_DQ3L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))**EXAMPLE SIX****Grade K Module 2****Leveled Reader: Pushes and Pulls**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=0054418308e43df08271b&authid=mQNBhAimPNMd&cid=tsplatform))Associated lessons ([TE pp. 170–185](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=184), [TB pp. 67–72](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=70)) |
| **DCI** | **PS2.B: Types of Interactions*** When objects touch or collide, they push on one another and can change motion. (K-PS2-1)
 | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer** M2\_DQ2L5 ([TE pp. 108–114](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=122), [TB pp. 39–42](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L6 ([TE pp. 116–121](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=130), [TB pp. 43–45](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=46))L7 ([TE pp. 122–126](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=136), [TB p. 46](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=49))**EXAMPLE TWO****Grade K Module 2****Marble Run Engineer** M2\_DQ3L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66)) |
| **DCI** | **PS3.C: Relationship Between Energy and Forces*** A bigger push or pull makes things speed up or slow down more quickly. (secondary to K-PS2-1)
 | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer** M2\_DQ1L3 ([TE pp. 20–27](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=34), [TB pp. 7–10](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=10))L4 ([TE pp. 28–35](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=42), [TB p. 11](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=14))L8 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=70), [TB pp. 21–22](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=24))L9 ([TE pp. 62–69](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=76), [TB pp. 23–28](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=26))L10 ([TE pp. 70–75](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=84), [TB pp. 29–30](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=32))**EXAMPLE TWO****Grade K Module 2****Marble Run Engineer**M2\_DQ2L2 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=104), [TB p. 35](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=38))L4 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=116), [TB p. 37](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L7 ([TE pp. 122–126](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=136), [TB p. 46](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=49))**EXAMPLE THREE****Grade K Module 2****Marble Run Engineer** M2\_DQ3L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))**EXAMPLE FOUR****Grade K Module 2****Leveled Reader:** **Pushes and Pulls**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=0054418308e43df08271b&authid=mQNBhAimPNMd&cid=tsplatform))Associated lessons ([TE pp. 170–185](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=184), [TB pp. 67–72](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=70)) |
| **CCC** | **Cause and Effect** * Simple tests can be designed to gather evidence to support or refute student ideas about causes. (K-PS2-1)
 | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer**M2\_DQ1L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=28), [TB pp. 5–6](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=8))L3 ([TE pp. 20–27](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=34), [TB pp. 7–10](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=10))L4 ([TE pp. 28–35](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=42), [TB p. 11](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=14))L5 ([TE pp. 36–41](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=50), [TB pp. 12–14](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=15))L6 ([TE pp. 42–47](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=56), [TB pp. 15–17](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=18))L7 ([TE pp. 48–55](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=62), [TB pp. 18–20](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=21))L8 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=70), [TB pp. 21–22](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=24))L9 ([TE pp. 62–69](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=76), [TB pp. 23–28](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=26))L10 ([TE pp. 70–75](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=84), [TB pp. 29–30](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=32))Key ResourcesL2 **Let’s Move!** Prior-KnowledgeRead-Aloud textL3 **The Push and Pull Song** video; **What Makes Things Move?** videoL4 **Exploring Forces** videoL6 **Change Direction** visual; **Pushes and Pulls—Odd One Out** video**EXAMPLE TWO****Grade K Module 2****Marble Run Engineer**M2\_DQ2L2 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=104), [TB p. 35](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=38))L3 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=110), [TB p. 36](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=39))L5 ([TE pp. 108–114](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=122), [TB pp. 39–42](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L6 ([TE pp. 116–121](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=130), [TB pp. 43–45](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=46))L7 ([TE pp. 122–126](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=136), [TB p. 46](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=49))Key Resources L2 **Engineering: Jetpack** video; **Follow the Marble** game**EXAMPLE THREE****Grade K Module 2****Marble Run Engineer** M2\_DQ3L1 ([TE pp. 132–139](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=146), [TB pp. 49–52](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=52))L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L3 ([TE pp. 146–151](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=160), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=57))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))L6 ([TE pp. 164–168](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=178), TB N/A)Key ResourcesL5 **The Challenge** visual; **Engineer Design Steps** visual**EXAMPLE FOUR****Grade K Module 2****Leveled Reader:** **Pushes and Pulls**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=0054418308e43df08271b&authid=mQNBhAimPNMd&cid=tsplatform))Associated lessons ([TE pp. 170–185](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=184), [TB pp. 67–72](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=70)) |

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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 K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.* Analyze data from tests of an object or tool to determine if it works as intended. (K-PS2-2)
 | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer** M2\_DQ1L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=28), [TB pp. 5–6](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=8))L4 ([TE pp. 28–35](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=42), [TB p. 11](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=14))L6 ([TE pp. 42–47](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=56), [TB pp. 15–17](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=18))L8 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=70), [TB pp. 21–22](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=24))**EXAMPLE TWO****Grade K Module 2****Marble Run Engineer** M2\_DQ2L2 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=104), [TB p. 35](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=38))L4 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=116), [TB p. 37](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))**EXAMPLE THREE****Grade K Module 2****Marble Run Engineer** M2\_DQ3L1 ([TE pp. 132–139](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=146), [TB pp. 49–52](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=52))L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L3 ([TE pp. 146–151](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=160), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=57))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66)) | **K-PS2-2. Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.\*** [Clarification Statement: Examples of problems requiring a solution could include having a marble or other object move a certain distance, follow a particular path, and knock down other objects. Examples of solutions could include tools such as a ramp to increase the speed of the object and a structure that would cause an object such as a marble or ball to turn.] [*Assessment Boundary: Assessment does not include friction as a mechanism for change in speed.*] | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer**M2\_DQ2L3 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=110), [TB p. 36](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=39))L4 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=116), [TB p. 37](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))**EXAMPLE TWO****Grade K Module 2****Marble Run Engineer** M2\_DQ3L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L3 ([TE pp. 146–151](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=160), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=57))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))L6 ([TE pp. 164–168](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=178), TB N/A)**EXAMPLE THREE****Grade K Module 2****Leveled Reader: Pushes and Pulls**Chapter 3 ([LR pp. 20–29](https://resource.twigscience.com/book.html?id=0054418308e43df08271b&authid=mQNBhAimPNMd&cid=tsplatform&page=22))Associated lesson ([TE pp. 181–185](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=195), [TB pp. 70–72](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=73)) |
| **DCI** | **PS2.A: Forces and Motion*** Pushes and pulls can have different strengths and directions. (K-PS2-2)
* Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. (K-PS2-2)
 | **EXAMPLE ONE**(for bullet points 1 and 2)**Grade K Module 2****Marble Run Engineer** M2\_DQ1L3 ([TE pp. 20–27](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=34), [TB pp. 7–10](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=10))L4 ([TE pp. 28–35](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=42), [TB p. 11](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=14))L5 ([TE pp. 36–41](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=50), [TB pp. 12–14](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=15))L6 ([TE pp. 42–47](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=56), [TB pp. 15–17](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=18))L7 ([TE pp. 48–55](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=62), [TB pp. 18–20](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=21))L8 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=70), [TB pp. 21–22](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=24))L9 ([TE pp. 62–69](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=76), [TB pp. 23–28](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=26))L10 ([TE pp. 70–75](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=84), [TB pp. 29–30](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=32))Key ResourcesL3 **The Push and Pull Song** video; **What Makes Things Move?** videoL4 **Exploring Forces** videoL6 **Change Direction** visual; **Pushes and Pulls—Odd One Out** video**EXAMPLE TWO**(for bullet points 1 and 2)**Grade K Module 2****Marble Run Engineer** M2\_DQ2L2 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=104), [TB p. 35](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=38))L3 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=110), [TB p. 36](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=39))L4 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=116), [TB p. 37](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L5 ([TE pp. 108–114](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=122), [TB pp. 39–42](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))L6 ([TE pp. 116–121](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=130), [TB pp. 43–45](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=46))L7 ([TE pp. 122–126](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=136), [TB p. 46](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=49))Key Resources L1 **Score 10 Tool** visualL2 **Engineering: Jetpack** video; **Follow the Marble** gameL4 **Speed** video **EXAMPLE THREE**(for bullet points 1 and 2)**Grade K Module 2****Marble Run Engineer** M2\_DQ3L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))**EXAMPLE FOUR****Grade K Module 2****Leveled Reader: Pushes and Pulls**All chapters ([LR pp. 2–29](https://resource.twigscience.com/book.html?id=0054418308e43df08271b&authid=mQNBhAimPNMd&cid=tsplatform))Associated lessons ([TE pp. 170–185](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=184), [TB pp. 67–72](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=70)) |
| **DCI** | **ETS1.A: Defining Engineering Problems*** A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions. (secondary to K-PS2-2)
 | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer** M2\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=22), [TB pp. 3–4](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=6))**EXAMPLE TWO****Grade K Module 2****Marble Run Engineer** M2\_DQ3L1 ([TE pp. 132–139](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=146), [TB pp. 49–52](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=52))L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L3 ([TE pp. 146–151](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=160), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=57))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))L6 ([TE pp. 164–168](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=178), TB N/A)Key ResourcesL1 **Make Your Marble Move** video |
| **CCC** | **Cause and Effect** * Simple tests can be designed to gather evidence to support or refute student ideas about causes. (K-PS2-2)
 | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer**M2\_DQ2L3 ([TE pp. 96–101](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=110), [TB p. 36](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=39))L5 ([TE pp. 108–114](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=122), [TB pp. 39–42](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=42))**EXAMPLE TWO****Grade K Module 2****Marble Run Engineer** M2\_DQ3L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L3 ([TE pp. 146–151](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=160), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=57))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))L6 ([TE pp. 164–168](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=178), TB N/A) |

**K-PS3 Energy**

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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 K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. * Make observations (firsthand or from media) to collect data that can be used to make comparisons. (K-PS3-1)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=40), [TB p. 17](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=20))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))Key ResourcesL4 **Thermometer** handout; **Hot or Cold** visual; **Where Does Rain Come From?** video | **K-PS3-1.** **Make observations to determine the effect of sunlight on Earth’s surface.** [Clarification Statement: Examples of Earth’s surface could include sand, soil, rocks, and water.] [*Assessment Boundary: Assessment of temperature is limited to relative measures such as warmer/cooler*.] | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=40), [TB p. 17](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=20))L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=46), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=21))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=70), [TB p. 27](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=30))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=76), [TB p. 28](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=31))Key ResourcesL4 **Thermometer** handout; **Hot or Cold** visual; **Where Does Rain Come From?** videoL8 **Sun’s Rays** videoL10 **Under My Umbrella**  Read-Aloud text |
| **SEP** | ***Connections to Nature of Science*****Scientific Investigations Use a Variety of Methods*** Scientists use different ways to study the world. (K-PS3-1)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ4L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79))Key ResourcesL3 **Predicting and Preparing for the Weather** Read-Aloud text |
| **DCI** | **PS3.B: Conservation of Energy and Energy Transfer*** Sunlight warms Earth’s surface. (K-PS3-1)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=40), [TB p. 17](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=20))L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=46), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=21))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=70), [TB p. 27](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=30))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=76), [TB p. 28](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=31))Key ResourcesL4 **Thermometer** handout; **Hot or Cold** visual; **Where Does Rain Come From?** videoL8 **Sun’s Rays** videoL10 **Under My Umbrella**  Read-Aloud text |
| **CCC** | **Cause and Effect*** Events have causes that generate observable patterns. (K-PS3-1)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=46), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=21))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27)) |

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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 K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. * Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. (K-PS3-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=40), [TB p. 17](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=20))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))Key ResourcesL3 **Umbrella Top Template** handoutL4 **Thermometer** handout; **Hot or Cold** visual; **Where Does Rain Come From?** videoL8 **Sun’s Rays** video | **K-PS3-2.** **Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.\*** [*Clarification Statement: Examples of structures could include umbrellas, canopies, and tents that minimize the warming effect of the sun.*] | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))Key ResourcesL3 **Umbrella Top Template** handoutL8 **Sun’s Rays** video |
| **sDCI** | **PS3.B: Conservation of Energy and Energy Transfer*** Sunlight warms Earth’s surface. (K-PS3-2
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=40), [TB p. 17](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=20))L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=46), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=21))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=70), [TB p. 27](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=30))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=76), [TB p. 28](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=31)) |
| **CCC** | **Cause and Effect*** Events have causes that generate observable patterns. (K-PS3-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=46), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=21))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27)) |

**K–2 Engineering Design**

|  |  |  |  |
| --- | --- | --- | --- |
| **Science and Engineering Practices****Disciplinary Core Ideas****Crosscutting Concepts** | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Asking Questions and Defining Problems** Asking questions and defining problems in K–2 builds on prior experiences and progresses to simple descriptive questions.* Ask questions based on observations to find more information about the natural and/or designed world(s). (K–2-ETS1-1)
* Define a simple problem that can be solved through the development of a new or improved object or tool. (K–2-ETS1-1)
 | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer** M2\_DQ3L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ4L2 ([TE pp. 160–165](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=174), [TB pp. 71–75](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=74))L3 ([TE pp. 166–171](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=180), [TB p. 76](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=79))L4 ([TE pp. 172–177](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=186), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=80))**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ4L4 ([TE pp. 174–178](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=188), [TB pp. 69–70](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=72))**EXAMPLE FOUR****Grade K Module 4****I Can**M4\_DQ5L1 ([TE pp. 184–189](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=198), [TB pp. 73–76](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=76))L2 ([TE pp. 190–193](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=204), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=80)) | **K–2-ETS1-1.****Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.** | **EXAMPLE ONE****Grade K Module 2****Marble Run Engineer** M2\_DQ3L3 ([TE pp. 146–151](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=160), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=57))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))Key ResourcesL5 **The Challenge** visual, **Engineer Design Steps** visual**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=40), [TB p. 17](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=20))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=76), [TB p. 28](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=31))Key Resources L1 **Umbrella/Weather** handout; **Weather** visual; **Be Prepared** video, **Weather Song** videoL4 **Thermometer** handout; **Hot or Cold** visual; **Where Does Rain Come From?** video**EXAMPLE THREE****Grade K Module 4****I Can**M4\_DQ4L4 ([TE pp. 174–178](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=188), [TB pp. 69–70](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=72))**EXAMPLE FOUR****Grade K Module 4****I Can**M4\_DQ5L1 ([TE pp. 184–189](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=198), [TB pp. 73–76](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=76))L2 ([TE pp. 190–193](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=204), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=80))L3 ([TE pp. 194–197](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=208), [TB p. 79](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=82)) |
| **DCI** | **ETS1.A: Defining and Delimiting Engineering Problems*** A situation that people want to change or create can be approached as a problem to be solved through engineering. (K–2-ETS1-1)
* Asking questions, making observations, and gathering information are helpful in thinking about problems. (K–2-ETS1-1)
* Before beginning to design a solution, it is important to clearly understand the problem. (K–2-ETS1-1)
 | **EXAMPLE ONE**(for bullet point 1)**Grade K Module 2****Marble Run Engineer**M2\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=22), [TB pp. 3–4](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=6))**EXAMPLE TWO**(for bullet point 1)**Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))**EXAMPLE THREE**(for bullet point 1)**Grade K Module 4****I Can**M4\_DQ5L1 ([TE pp. 184–189](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=198), [TB pp. 73–76](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=76))L2 ([TE pp. 190–193](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=204), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=80))L3 ([TE pp. 194–197](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=208), [TB p. 79](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=82))**EXAMPLE FOUR**(for bullet point 2)**Grade K Module 2****Marble Run Engineer** M2\_DQ3L1 ([TE pp. 132–139](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=146), [TB pp. 49–52](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=52))L2 ([TE pp. 140–145](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=154), [TB p. 53](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=56))L3 ([TE pp. 146–151](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=160), [TB pp. 54–55](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=57))L5 ([TE pp. 158–163](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=172), [TB pp. 63–66](https://resource.twigscience.com/book.html?id=00544183078247b86783f&authid=8ocH8Nn0x57E&cid=tsplatform&page=66))L6 ([TE pp. 164–168](https://resource.twigscience.com/book.html?id=005441830c11fb29e1edb&authid=I0bgqNh5IPhW&cid=tsplatform&page=178), TB N/A)**EXAMPLE FIVE**(for bullet point 2)**Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))L4 ([TE pp. 26–31](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=40), [TB p. 17](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=20))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))**EXAMPLE SIX**(for bullet point 2)**Grade K Module 4****I Can**M4\_DQ5L1 ([TE pp. 184–189](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=198), [TB pp. 73–76](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=76))L2 ([TE pp. 190–193](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=204), [TB pp. 77–78](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=80))L3 ([TE pp. 194–197](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=208), [TB p. 79](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=82))**EXAMPLE SEVEN**(for bullet point 3)**Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))**EXAMPLE EIGHT****Grade K Module 4****Leveled Reader: Animal Builders**Chapter 2 ([LR pp.14–21](https://resource.twigscience.com/book.html?id=005441830e0c207f329a0&authid=gAxUg22tD8zz&cid=tsplatform&page=16))Associated lesson ([TE pp. 210–215](https://resource.twigscience.com/book.html?id=00544183056d20da5dc67&authid=tdkj68c2uUHB&cid=tsplatform&page=224), [TB pp. 83–85](https://resource.twigscience.com/book.html?id=005441830d7f2f2e82ddb&authid=GbhzYV81eHgo&cid=tsplatform&page=86)) |
| **Science and Engineering Practices****Disciplinary Core Ideas****Crosscutting Concepts** | **Publisher Citations** | **Performance Expectation** | **Publisher Citations** |
|
| **SEP** | **Developing and Using Models**Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.* Develop a simple model based on evidence to represent a proposed object or tool. (K–2-ETS1-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ2L1 ([TE pp. 72–77](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=86), [TB pp. 31–32](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=34))L3 ([TE pp. 84–89](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=98), [TB pp. 34–37](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=37))L4 ([TE pp. 90–95](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=104), [TB pp. 38–39](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=41))L6 ([TE pp. 102–107](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=116), [TB pp. 42–44](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=45))Key ResourcesL1 **What Is the Weather Like?** videoL3 **More Weather Symbols** handoutL4 **Nine Weather Symbols** handout **EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ1L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))Key ResourcesL3 **Umbrella Top Template** handout | **K–2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.** | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=76), [TB p. 28](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=31))Key ResourcesL3 **Umbrella Top Template** handout**EXAMPLE TWO****Grade K Module 3****Leveled Reader: What’s the Weather?**Chapter 2 ([LR pp.10–19](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform&page=16))Associated lesson ([TE pp. 186–191](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=200)) |
| **DCI** | **ETS1.B: Developing Possible Solutions*** Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem’s solutions to other people. (K–2-ETS1-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=76), [TB p. 28](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=31))**EXAMPLE TWO****Grade K Module 3****Leveled Reader: What’s the Weather?**Chapter 2 ([LR pp.10–19](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform&page=16))Associated lesson ([TE pp. 186–191](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=200))Chapter 3 ([LR pp. 20–29](https://resource.twigscience.com/book.html?id=005441830d0e7a6e27e8a&authid=pMMYh9fZUnzR&cid=tsplatform&page=24))Associated lesson ([TE pp. 192–197](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=206)) |
| **CCC** | **Structure and Function*** The shape and stability of structures of natural and designed objects are related to their function(s). (K–2-ETS1-2)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=70), [TB p. 27](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=30))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=76), [TB p. 28](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=31)) |

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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 K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.* Analyze data from tests of an object or tool to determine if it works as intended. (K–2-ETS1-3)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))L2 ([TE pp. 14–19](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=28), [TB pp. 13–14](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=16))L5 ([TE pp. 32–37](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=46), [TB pp. 18–19](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=21))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=70), [TB p. 27](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=30))**EXAMPLE TWO****Grade K Module 3****Be Prepared**M3\_DQ3L1 ([TE pp. 114–119](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=128), [TB pp. 47–48](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=50))L2 ([TE pp. 120–124](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=134), [TB p. 49](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=52))L3 ([TE pp. 126–131](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=140), [TB pp. 50–52](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=53)) | **K–2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.** | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=70), [TB p. 27](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=30))L10 ([TE pp. 62–66](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=76), [TB p. 28](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=31)) |
| **DCI** | **ETS1.C: Optimizing the Design Solution*** Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K–2-ETS1-3)
 | **EXAMPLE ONE****Grade K Module 3****Be Prepared**M3\_DQ1L1 ([TE pp. 8–13](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=22), [TB pp. 7–12](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=10))L3 ([TE pp. 20–25](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=34), [TB pp. 15–16](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=18))L6 ([TE pp. 38–43](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=52), [TB p. 20](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=23))L7 ([TE pp. 44–49](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=58), [TB pp. 21–23](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=24))L8 ([TE pp. 50–55](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=64), [TB pp. 24–26](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=27))L9 ([TE pp. 56–61](https://resource.twigscience.com/book.html?id=005441830db2d82ac2d79&authid=vaJUS42NFyHz&cid=tsplatform&page=70), [TB p. 27](https://resource.twigscience.com/book.html?id=00544183032913b9053b9&authid=lmxahhGhIuBI&cid=tsplatform&page=30)) |