





Preparation Guide

Level K Module 2 LIFE

Materials: This section lists the quantity of each material necessary for the lesson. Lesson materials may be from a *PhD Science® Texas* materials kit, or the materials may be school-supplied items. In addition to having the listed materials, teachers should have access to the following common classroom items: sticky notes, chart paper, pencils, a whiteboard, and markers.

Resources: This section lists module resources (from the Module Resources section in the Teacher Edition) and core texts used in the lesson. Classrooms also need daily access to the module's Teacher Edition, Science Logbooks, and, if applicable, digital slides. A symbol () identifies resources that appear in the digital slides. Additional supports and Spanish resources are available in the Implementation Resources and Level Overview sections of the digital platform.

Preparation: This section identifies preparation teachers should complete before the lesson, including media teachers must cue before the lesson and activities that require setup. This section also describes advance preparation for upcoming lessons. For example, if teachers need to prepare 1 day in advance for an activity in Lesson 11, an advance preparation note appears in the Preparation section for Lesson 10. A symbol () identifies lessons with advance preparation notes.






Life | Advance Preparation

Several activities in this module require advance preparation. A version of this list appears in the Module Overview of the Teacher Edition. The expanded version in this guide identifies all lessons for which preparation may take longer than a planning period. A symbol (†) identifies preparation that can be done earlier than the suggested time.



Lesson	Time in Advance	Investigation	Description
4	8 days	Bean Plant Demonstration	Prepare bean plants for identifying roots.
4	1 day	Plant Part Observation	Obtain a bouquet of assorted cut flower stems, enough for each group to observe three different kinds of plant stems with flowers.
6	8 days	Science Challenge	Prepare bean plants for Science Challenge.

Life | Lesson Preparation

Lesson 1

Materials	Kit Items None School-Supplied Items None
Resources	<input type="checkbox"/> Lesson 1 Resource A: North America Map  <input type="checkbox"/> Lesson 1 Resource B: Scientist's Notebook Entry 
Preparation 	<input type="checkbox"/> Cue Mojave Desert flyover video (http://phdsci.link/1628)  and Wonderland of Rocks tour video (http://phdsci.link/1629)  Advance Preparation for Lesson 4 <input type="checkbox"/> 8 Days Before: Prepare bean plants for identifying roots. Advance Preparation for Lesson 6 <input type="checkbox"/> 8 Days Before: Prepare bean plants for Science Challenge.

Lesson 2

Materials	Kit Items <input type="checkbox"/> Life in the Mojave Desert anchor model components (<i>PhD Science</i> ® exclusive) <ul style="list-style-type: none"> ○ Wonderland of Rocks stickers and Mara stickers for student models (12 sets of each) School-Supplied Items <input type="checkbox"/> Scissors Item Reuse <input type="checkbox"/> Lesson 3 requires 3 each of the Wonderland of Rocks and Mara student models.
Resources	<input type="checkbox"/> Lesson 2 Resource: Wonderland of Rocks and Mara Cutouts
Preparation	<input type="checkbox"/> Cue Mara flyover video (http://phdsci.link/1630)  and Mara tour video (http://phdsci.link/1631)  <input type="checkbox"/> Prepare stickers for student models. Cut three identical sets of stickers from each sheet. Prepare enough sets of Mara stickers for one half of the class and enough sets of the Wonderland of Rocks stickers for the other half of the class. <input type="checkbox"/> If the class is not using the Module 2 kit, prepare Wonderland of Rocks cutouts and Mara cutouts. (See Lesson 2 Resource.)

Lesson 3

Materials	Kit Items <ul style="list-style-type: none"><input type="checkbox"/> Life in the Mojave Desert anchor model components<ul style="list-style-type: none">○ Adhesive hook fastener dots, $\frac{3}{8}$" (22)○ Adhesive hook fastener dots, $\frac{7}{8}$" (71)○ Felt background (1)○ Bighorn sheep figure (1)○ Chuckwalla figure (1)○ Cloud figures (4)○ Deer grass figures (7)○ Desert fan palm figures (5)○ Honey mesquite figures (2)○ Joshua tree figures (3)○ Man and woman figures (1 each)○ Pinyon pine figure (1)○ Pond figure (1)○ Large rock figures (3)○ Small rock figures (6)○ Sun figure (1)○ Western yellow bat figure (1)○ Mara label (1)○ Oasis of Mara label (1)○ Wonderland of Rocks label (1)○ Air symbols (2)○ Light symbols (2)○ Nutrients symbols (2)○ Space symbols (2)○ Water symbols (3) School-Supplied Items <p>None</p> Prepared Items from Previous Lessons <ul style="list-style-type: none"><input type="checkbox"/> Wonderland of Rocks and Mara student models from Lesson 2 (3 of each) Item Reuse <ul style="list-style-type: none"><input type="checkbox"/> Lesson 18 requires 2 of the prepared deer grass anchor model components and the prepared honey mesquite, pinyon pine, pond, Oasis of Mara, air, light, nutrients, space, and water anchor model components.<input type="checkbox"/> Lesson 26 requires the prepared bighorn sheep, chuckwalla, and western yellow bat anchor model components.<input type="checkbox"/> Lesson 30 requires the prepared man and woman anchor model components.
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Lesson 3 *continued*




Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 3 Resource A: Anchor Model Setup Instructions <input type="checkbox"/> Lesson 3 Resource B: Guide for Drawing Anchor Model
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Collect three student models of the Wonderland of Rocks (Lesson 2 Activity Guide B) and three student models of Mara (Lesson 2 Activity Guide B) to display during the Lesson 3 Launch. <input type="checkbox"/> Prepare anchor model components for use throughout the module. (See Lesson 3 Resource A.) <input type="checkbox"/> If the class is not using the Module 2 kit, review anchor model samples to prepare to draw anchor model. (See Lesson 3 Resource B.) <p>Advance Preparation for Lesson 4</p> <ul style="list-style-type: none"> <input type="checkbox"/> 1 Day Before: Obtain a bouquet of assorted cut flower stems, enough for each group to observe three different kinds of plant stems with flowers.







Lesson 4

Materials	<p>Kit Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Container, 16 oz (1) <input type="checkbox"/> Grow lamp, two-headed (1) or lamps with grow light bulbs (2) <input type="checkbox"/> Plant container, four-pot (1) <input type="checkbox"/> Scarlet runner bean seeds (2 seeds) <input type="checkbox"/> Spray bottle (1) <input type="checkbox"/> Tape, electrical (partial roll, optional) <input type="checkbox"/> Tray, plastic (1) <p>School-Supplied Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Glue or tape <input type="checkbox"/> Plant stems with flowers (18) <input type="checkbox"/> Potting soil (2 cups) <input type="checkbox"/> Scissors (1) <input type="checkbox"/> Water (access) <p>Item Reuse</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 5 requires the class plant parts chart. <input type="checkbox"/> Lesson 6 requires the bean plant demonstration materials and 16 oz container.
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 4 Resource A: Bean Plant Demonstration Setup Instructions <input type="checkbox"/> Lesson 4 Resource B: Mojave Desert Plants Photographs <input type="checkbox"/> Lesson 4 Resource C: Flowering Plants Photographs <input type="checkbox"/> Lesson 4 Resource D: Carnation Roots Photograph <input type="checkbox"/> Lesson 4 Resource E: Bean Plant with Roots Photograph (optional) <input type="checkbox"/> Lesson 4 Resource F: Plant Parts Cards <input type="checkbox"/> Lesson 4 Resource G: Desert Fan Palm Flowers Photograph
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare plant parts cards (Lesson 4 Resource F).


Lesson 5

<p>Materials</p>	<p>Kit Items None</p> <p>School-Supplied Items <input type="checkbox"/> Scissors (1)</p> <p>Prepared Items from Previous Lessons <input type="checkbox"/> Class plant parts chart started in Lesson 4</p>
<p>Resources</p>	<p><input type="checkbox"/> Lesson 4 Resource B: Mojave Desert Plants Photographs</p> <p><input type="checkbox"/> Lesson 5 Resource A: Chihuahua Desert Plant Samples Images </p> <p><input type="checkbox"/> Lesson 5 Resource B: Texas Plants Photographs </p> <p><input type="checkbox"/> Lesson 5 Resource C: Texas Native Plants Cards</p> <p><input type="checkbox"/> Lesson 5 Resource D: Mojave Desert Trees and Plants with Flowers Photographs </p>
<p>Preparation</p>	<p><input type="checkbox"/> Prepare Texas native plants cards. (See Lesson 5 Resource C.)</p> <p><input type="checkbox"/> Prepare Mojave Desert trees and plants with flowers photographs. (See Lesson 5 Resource D.)</p>


Lesson 6

<p>Materials</p>	<p>Kit Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Boxes, cardboard, 12" × 12" × 12" (2) <input type="checkbox"/> Container, 16 oz (1) <input type="checkbox"/> Dowels, wooden, 12" (32) <input type="checkbox"/> Grow lamp, two-headed (1) or lamps with grow light bulbs (2) <input type="checkbox"/> Plant containers, plastic, four-pot (10) <input type="checkbox"/> Scarlet runner bean seeds (38) <input type="checkbox"/> Spray bottle (1) <input type="checkbox"/> Tape, electrical (partial roll, optional) <input type="checkbox"/> Trays, plastic (5) <p>School-Supplied Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Potting soil (20 cups) <input type="checkbox"/> Scissors (1) <input type="checkbox"/> Tape, clear (partial roll) <input type="checkbox"/> Water (access) <p>Item Reuse</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 7 requires the cardboard boxes, grow lamp, prepared plastic trays with bean plants, and prepared additional water/no-light and no-water/no-light labels.
<p>Resources</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 6 Resource A: Science Challenge Rubric <input type="checkbox"/> Lesson 6 Resource B: Water and Light Condition Labels <input type="checkbox"/> Lesson 6 Resource C: Bean Plant Setup Instructions <input type="checkbox"/> Lesson 6 Resource D: Healthy Desert Fan Palms Photograph  <input type="checkbox"/> Lesson 6 Resource E: Dead Desert Fan Palms Photograph  <input type="checkbox"/> Lesson 6 Resource F: Healthy Bean Plant Photograph  <input type="checkbox"/> Lesson 6 Resource G: Dying Bean Plant Photograph 
<p>Preparation</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare to display cardboard boxes, two-headed grow lamp, prepared bean plants with water condition labels covered and light condition labels covered, and wooden dowel to support students as they create a class investigation plan for the Science Challenge.



Lesson 7

<p>Materials</p>	<p>Kit Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Boxes, cardboard, 12" × 12" × 12" (2) <input type="checkbox"/> Grow lamp, two-headed (1) or lamps with grow light bulbs (2) <p>School-Supplied Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Markers, various colors (3) <input type="checkbox"/> Pencils, black, brown, dark green, light green, yellow (1 each color) <input type="checkbox"/> Scissors (1) <input type="checkbox"/> Tape, duct (1 roll) <input type="checkbox"/> Water (access) <p>Prepared Items from Previous Lessons</p> <ul style="list-style-type: none"> <input type="checkbox"/> Additional water/no-light and no-water/no-light labels from Lesson 6 (1 each) <input type="checkbox"/> Plastic trays with bean plants from Lesson 6 (4) <p>Item Reuse</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 8 requires the prepared Science Challenge materials and the data charts for Science Challenge observations.
<p>Resources</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 6 Resource A: Science Challenge Rubric <input type="checkbox"/> Lesson 7 Resource A: Science Challenge Station Setup Instructions <input type="checkbox"/> Lesson 7 Resource B: Science Challenge Results Photographs (optional) 
<p>Preparation</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare stations for Science Challenge. (See Lesson 7 Resource A.) <input type="checkbox"/> Arrange four tables where students can sit when observing bean plants. Place chairs for two groups of students at each table.



Lesson 8

<p>Materials</p>	<p>Kit Items</p> <p>None</p> <p>School-Supplied Items</p> <p>None</p> <p>Prepared Items from Previous Lessons</p> <ul style="list-style-type: none"> <input type="checkbox"/> Data charts for Science Challenge observations started in Lesson 7 <input type="checkbox"/> Science Challenge materials from Lesson 7 <input type="checkbox"/> Class weather calendar from Weather Module displaying at least 1 week of weather data <p>Item Reuse</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 9 requires the prepared Science Challenge materials and the data charts for Science Challenge observations.
<p>Resources</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 6 Resource A: Science Challenge Rubric <input type="checkbox"/> Lesson 7 Resource B: Science Challenge Results Photographs (optional) 
<p>Preparation</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Arrange four tables where students can sit when observing bean plants. Place chairs for two groups of students at each table.







Lesson 9

Materials	<p>Kit Items None</p> <p>School-Supplied Items None</p> <p>Prepared Items from Previous Lessons</p> <ul style="list-style-type: none"> <input type="checkbox"/> Data charts for Science Challenge observations started in Lesson 7 <input type="checkbox"/> Science Challenge materials from Lesson 8
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 6 Resource A: Science Challenge Rubric <input type="checkbox"/> Lesson 6 Resource F: Healthy Bean Plant Photograph  <input type="checkbox"/> Lesson 7 Resource B: Science Challenge Results Photographs (optional) <input type="checkbox"/> Lesson 9 Resource: Long-Term Bean Plant Photographs 
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Arrange four tables where students can sit when observing bean plants. Place chairs for two groups of students at each table. <input type="checkbox"/> Post the data charts in four different areas of the classroom.





Lesson 10

Materials	<p>Kit Items None</p> <p>Module 1 Kit</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sentence strips (3) <p>School-Supplied Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Scissors (1)
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 6 Resource A: Science Challenge Rubric <input type="checkbox"/> Lesson 6 Resource D: Healthy Desert Fan Palms Photograph  <input type="checkbox"/> Lesson 6 Resource E: Dead Desert Fan Palms Photograph  <input type="checkbox"/> Lesson 10 Resource: Healthy and Unhealthy Plant Cards
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare healthy and unhealthy plant cards. (See Lesson 10 Resource.)



Lesson 11

Materials	<p>Kit Items None</p> <p>School-Supplied Items None</p>
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 9 Resource: Long-Term Bean Plant Photographs  <input type="checkbox"/> Lesson 11 Resource A: Faultline Farm Photographs  <input type="checkbox"/> Lesson 11 Resource B: Bell Pepper Plant Photographs  <input type="checkbox"/> Lesson 11 Resource C: Bell Pepper Plant Care Instructions  <input type="checkbox"/> Lesson 11 Resource D: Plants With and Without Soil Photographs  <input type="checkbox"/> Lesson 11 Resource E: Plants With and Without Nutrients Photographs 
Preparation	None







Lesson 12

Materials	<p>Kit Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Tape measure (1) <p>Module 1 Kit</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sentence strips (2) <p>School-Supplied Items None</p>
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 11 Resource C: Bell Pepper Plant Care Instructions <input type="checkbox"/> Lesson 12 Resource A: Carrot and Onion Illustrations  <input type="checkbox"/> Lesson 12 Resource B: Radish Plants in Plastic Bags Photographs  <input type="checkbox"/> Lesson 12 Resource C: Radish Plants After 21 Days Photographs  <input type="checkbox"/> Lesson 12 Resource D: Updated Bell Pepper Plant Photographs 
Preparation	None




Lesson 13

Materials	<p>Kit Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Gloves, disposable (24 pairs) <input type="checkbox"/> Knife (1) <p>Module 1 Kit</p> <ul style="list-style-type: none"> <input type="checkbox"/> Safety goggles, student (24) <input type="checkbox"/> Safety goggles, teacher (1) <p>School-Supplied Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bell pepper, green (1) <input type="checkbox"/> Glue or tape <input type="checkbox"/> Paper towels (7 sheets) <input type="checkbox"/> Scissors (1) <input type="checkbox"/> Spoon (1)
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 11 Resource C: Bell Pepper Plant Care Instructions <input type="checkbox"/> Lesson 13 Resource A: Seed Packet Illustrations  <input type="checkbox"/> Lesson 13 Resource B: Plant Growth Cards <input type="checkbox"/> Lesson 13 Resource C: Mango Tree Growth Cards
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare to bring in a green bell pepper for bell pepper demonstration. <input type="checkbox"/> Prepare plant growth cards. (See Lesson 13 Resource B.) <input type="checkbox"/> Prepare mango tree growth cards. (See Lesson 13 Resource C.) <input type="checkbox"/> Cue bell pepper growing video (http://phdsci.link/1890). 



Lesson 14

Materials	<p>Kit Items</p> <p>None</p> <p>School-Supplied Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Scissors (1) <p>Item Reuse</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 26 requires the living things class chart.
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 13 Resource A: Seed Packet Illustrations  <input type="checkbox"/> Lesson 14 Resource A: Seedling Photographs  <input type="checkbox"/> Lesson 14 Resource B: Scarlet Runner Bean Seedling and Adult Plant Photographs  <input type="checkbox"/> Lesson 14 Resource C: Seedling and Adult Plant Cards <input type="checkbox"/> Lesson 14 Resource D: Adult Green Pea Plant Photograph  <input type="checkbox"/> Lesson 14 Resource E: Adult Bell Pepper and Pumpkin Plant Photographs  <input type="checkbox"/> Lesson 14 Resource F: Dead Green Pea Plant Photograph 
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare seedling and adult plant cards. (See Lesson 14 Resource C.)



Lesson 15

Materials	Kit Items <ul style="list-style-type: none"> <input type="checkbox"/> Binder rings, 1" (24) <input type="checkbox"/> Knowledge Deck™ cards, Joshua Trees (24) <input type="checkbox"/> Knowledge Deck poster, Joshua Trees (1) <input type="checkbox"/> Sticky note arrows (120) School-Supplied Items None Item Reuse <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 17 requires the Joshua Trees Knowledge Deck cards and poster.
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 11 Resource A: Faultline Farm Photographs  <input type="checkbox"/> Lesson 15 Resource: Rainfall Data for Twentynine Palms 
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Cue Wonderland of Rocks water search video (http://phdsci.link/1657). 

Lesson 16

Materials	Kit Items <ul style="list-style-type: none"> <input type="checkbox"/> Knowledge Deck cards, Desert Fan Palms (24) <input type="checkbox"/> Knowledge Deck poster, Desert Fan Palms (1) <input type="checkbox"/> Sticky note arrows (120) School-Supplied Items None Item Reuse <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 17 requires the Desert Fan Palms Knowledge Deck cards and poster.
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 15 Resource: Rainfall Data for Twentynine Palms 
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Cue Mara water search video (http://phdsci.link/1658). 





Lesson 17

Materials	<p>Kit Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Knowledge Deck cards <ul style="list-style-type: none"> ○ Desert Fan Palms (24) ○ Joshua Trees (24) <input type="checkbox"/> Knowledge Deck posters <ul style="list-style-type: none"> ○ Desert Fan Palms (1) ○ Joshua Trees (1) <p>School-Supplied Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Scissors (1)
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 15 Resource: Rainfall Data for Twentynine Palms  <input type="checkbox"/> Lesson 17 Resource A: Desert Environment Sheets  <input type="checkbox"/> Lesson 17 Resource B: Desert Plant Cards
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare to distribute a copy of Lesson 17 Resource A to each student pair. <input type="checkbox"/> Prepare desert plant cards. (See Lesson 17 Resource B.)





Lesson 18

Materials	<p>Kit Items</p> <p>None</p> <p>Module 1 Kit</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sentence strip (1) <p>School-Supplied Items</p> <p>None</p> <p>Prepared Items from Previous Lessons</p> <ul style="list-style-type: none"> <input type="checkbox"/> Anchor model components from Lesson 3 <ul style="list-style-type: none"> ○ Deer grass figures (2) ○ Honey mesquite figures (2) ○ Pinyon pine figure (1) ○ Pond figure (1) ○ Oasis of Mara label (1) ○ Air symbols (2) ○ Light symbols (2) ○ Nutrients symbols (2) ○ Space symbols (2) ○ Water symbols (3)
Resources	None
Preparation	None





Lesson 19

Materials	<p>Kit Items None</p> <p>School-Supplied Items None</p>
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 19 Resource A: Grape Plant Photograph  <input type="checkbox"/> Lesson 19 Resource B: Grapevines on Building Photograph  <input type="checkbox"/> Lesson 19 Resource C: Conceptual Checkpoint  <input type="checkbox"/> Lesson 19 Resource D: Plant Growing from Pavement Photograph (optional) 
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare to distribute a copy of Lesson 19 Resource C to each student.


Lesson 20

Materials	<p>Kit Items None</p> <p>School-Supplied Items <input type="checkbox"/> Scissors (1)</p>
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 20 Resource A: Bighorn Sheep Photograph  <input type="checkbox"/> Lesson 20 Resource B: Mojave Desert Animals Cards <input type="checkbox"/> Lesson 20 Resource C: Scientist's Notebook Page 
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Cue bighorn sheep introduction video (http://phdsci.link/1670)  and bighorn sheep actions video (http://phdsci.link/1671).  <input type="checkbox"/> Prepare Mojave Desert animals cards. (See Lesson 20 Resource B.)




Lesson 21

Materials	<p>Kit Items None</p> <p>School-Supplied Items None</p> <p>Item Reuse <input type="checkbox"/> Lesson 22 requires the class bighorn sheep needs chart.</p>
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 7 Resource B: Science Challenge Results Photographs from Day 1 and Day 7 of the investigation  <input type="checkbox"/> Lesson 21 Resource: Baby Desert Animal Photographs 
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Cue black-tailed jackrabbit video (http://phdsci.link/1672)  and desert tortoise video (http://phdsci.link/1673). 


Lesson 22

Materials	<p>Kit Items None</p> <p>Module 1 Kit <input type="checkbox"/> Sentence strips (2)</p> <p>School-Supplied Items <input type="checkbox"/> Glue sticks (24) <input type="checkbox"/> Scissors (1)</p> <p>Prepared Items from Previous Lessons <input type="checkbox"/> Class bighorn sheep needs chart started in Lesson 21</p>
Resources	<p><input type="checkbox"/> Lesson 20 Resource C: Scientist’s Notebook Page</p> <p><input type="checkbox"/> Lesson 22 Resource A: Animal Action Cards</p> <p><input type="checkbox"/> Lesson 22 Resource B: Chimpanzees Finding Food Photographs </p>
Preparation	<p><input type="checkbox"/> Prepare animal action cards. (See Lesson 22 Resource A.)</p>

Lesson 23

Materials	<p>Kit Items None</p> <p>School-Supplied Items <input type="checkbox"/> Scissors (1) <input type="checkbox"/> Tape, clear (partial roll)</p>
Resources	<p><input type="checkbox"/> Lesson 21 Resource: Baby Desert Animal Photographs–Bighorn Sheep </p> <p><input type="checkbox"/> Lesson 23 Resource: Animal Breathing Cards</p>
Preparation	<p><input type="checkbox"/> Cue bighorn sheep breathing video (http://phdsci.link/1677)  and animal breathing video (http://phdsci.link/1678). </p> <p><input type="checkbox"/> Prepare animal breathing cards. (See Lesson 23 Resource.)</p>



Lesson 24

Materials	<p>Kit Items None</p> <p>Module 1 Kit <input type="checkbox"/> Sentence strip (1)</p> <p>School-Supplied Items None</p>
Resources	<p>None</p>
Preparation	<p><input type="checkbox"/> Cue bighorn sheep breathing video (http://phdsci.link/1677). </p>




Lesson 25

Materials	<p>Kit Items None</p> <p>Module 1 Kit <input type="checkbox"/> Sentence strip (1)</p> <p>School-Supplied Items <input type="checkbox"/> Glue or tape <input type="checkbox"/> Scissors (1)</p> <p>Item Reuse <input type="checkbox"/> Lesson 26 requires the prepared bighorn sheep, chuckwalla, and western yellow bat Mojave Desert animal needs cards.</p>
Resources	<input type="checkbox"/> Lesson 25 Resource A: Mojave Desert Animal Comparison Cards <input type="checkbox"/> Lesson 25 Resource B: Mojave Desert Animal Needs Cards <input type="checkbox"/> <i>A Day and Night in the Desert</i> (Arnold 2015)
Preparation	<input type="checkbox"/> Prepare Mojave Desert animal comparison cards. (See Lesson 25 Resource A.) <input type="checkbox"/> Prepare Mojave Desert animal needs cards. (See Lesson 25 Resource B.)


Lesson 26

Materials	<p>Kit Items None</p> <p>Module 1 Kit <input type="checkbox"/> Sentence strips (2)</p> <p>School-Supplied Items None</p> <p>Prepared Items from Previous Lessons <input type="checkbox"/> Anchor model components from Lesson 3 <ul style="list-style-type: none"> <input type="checkbox"/> Bighorn sheep figure (1) <input type="checkbox"/> Chuckwalla figure (1) <input type="checkbox"/> Western yellow bat figure (1) <input type="checkbox"/> Living things class chart from Lesson 14 <input type="checkbox"/> Bighorn sheep, chuckwalla, and western yellow bat Mojave Desert animal needs cards from Lesson 25 (12 of each) </p> <p>Item Reuse <input type="checkbox"/> Lesson 31 requires the living things class chart.</p>
Resources	<input type="checkbox"/> Lesson 21 Resource: Baby Desert Animal Photographs–Bighorn Sheep  <input type="checkbox"/> Lesson 26 Resource: Mojave Desert Environment Photographs 
Preparation	<input type="checkbox"/> Prepare Mojave Desert animal needs cards. (See Lesson 25 Resource B.)


Lesson 27

Materials	<p>Kit Items None</p> <p>School-Supplied Items <input type="checkbox"/> Scissors (1)</p>
Resources	<p><input type="checkbox"/> Lesson 27 Resource A: Squirrel Card</p> <p><input type="checkbox"/> Lesson 27 Resource B: Conceptual Checkpoint </p>
Preparation	<p><input type="checkbox"/> Prepare squirrel cards. (See Lesson 27 Resource A.)</p> <p><input type="checkbox"/> Prepare to distribute a copy of Lesson 27 Resource B to each student. </p> <p><input type="checkbox"/> Cue squirrel video (http://phdsci.link/1688). </p>


Lesson 28

Materials	<p>Kit Items None</p> <p>Module 1 Kit <input type="checkbox"/> Sentence strips (2)</p> <p>School-Supplied Items <input type="checkbox"/> Glue sticks (24) <input type="checkbox"/> Scissors (1)</p>
Resources	<p><input type="checkbox"/> Lesson 28 Resource A: Human Action Cards</p> <p><input type="checkbox"/> Lesson 28 Resource B: Humans Photograph </p>
Preparation	<p><input type="checkbox"/> Prepare human action cards. (See Lesson 28 Resource A.)</p>




Lesson 29

Materials	<p>Kit Items None</p> <p>School-Supplied Items None</p> <p>Item Reuse <input type="checkbox"/> Lesson 30 requires the prepared natural resources class chart.</p>
Resources	None
Preparation	<p><input type="checkbox"/> Cue food, water, and shelter video (http://phdsci.link/1720). </p>



Lesson 30

Materials	<p>Kit Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Knowledge Deck cards, Basketmaking (24) <input type="checkbox"/> Knowledge Deck poster, Basketmaking (1) <p>School-Supplied Items</p> <p>None</p> <p>Prepared Items from Previous Lessons</p> <ul style="list-style-type: none"> <input type="checkbox"/> Anchor model components from Lesson 3 <ul style="list-style-type: none"> <input type="checkbox"/> Man and woman figures (1 each) <input type="checkbox"/> Natural resources class chart started in Lesson 29
Resources	None
Preparation	<input type="checkbox"/> Cue clothing and tools video (http://phdsci.link/1721). 





Lesson 31

Materials	<p>Kit Items</p> <p>None</p> <p>Module 1 Kit</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sentence strip (1) <p>School-Supplied Items</p> <p>None</p> <p>Prepared Items from Previous Lessons</p> <ul style="list-style-type: none"> <input type="checkbox"/> Living things class chart started in Lesson 26
Resources	<input type="checkbox"/> Lesson 31 Resource: Twentynine Palms House Photograph 
Preparation	<input type="checkbox"/> Cue traditions video (http://phdsci.link/1722)  and Twentynine Palms flyover video (http://phdsci.link/1723). 



Lesson 32

Materials	<p>Kit Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Magnifiers, handheld, plastic (24) <input type="checkbox"/> Rock samples, assorted (48) <p>Module 1 Kit</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bags, resealable plastic, 1 qt (24) <input type="checkbox"/> Gravel (1 cup) <input type="checkbox"/> Safety goggles, student (24) <input type="checkbox"/> Safety goggles, teacher (1) <p>School-Supplied Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Colored pencils (12 sets) <input type="checkbox"/> Rocks, assorted (144–192) <p>Prepared Items from Previous Lessons</p> <ul style="list-style-type: none"> <input type="checkbox"/> Properties of objects and materials chart from Weather Module
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 32 Resource A: Barker Dam Reservoir Photograph  <input type="checkbox"/> Lesson 32 Resource B: Rock Collections Setup Instructions <input type="checkbox"/> Lesson 32 Resource C: Barker Dam Photograph 
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare rock collections A and B. (See Lesson 32 Resource B.)

Lesson 33

Materials	<p>Kit Items</p> <p>None</p> <p>School-Supplied Items</p> <p>None</p>
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 33 Resource A: School Activity Photographs  <input type="checkbox"/> Lesson 33 Resource B: School Activity Photographs with Labels (optional)  <input type="checkbox"/> Lesson 33 Resource C: Conceptual Checkpoint  <input type="checkbox"/> Lesson 33 Resource D: Natural Resource Photographs 
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare to distribute a copy of Lesson 33 Resource C to each student.

Lesson 34

Materials	<p>Kit Items None</p> <p>School-Supplied Items <input type="checkbox"/> Scissors (1)</p>
Resources	<input type="checkbox"/> Lesson 34 Resource: Key Term Cards
Preparation	<p><input type="checkbox"/> Prepare key term cards. (See Lesson 34 Resource.)</p> <p><input type="checkbox"/> Cue Mojave Desert flyover video (http://phdsci.link/1628)  and Mara flyover video (http://phdsci.link/1630). </p>

Lesson 35

Materials	<p>Kit Items None</p> <p>Module 1 Kit <input type="checkbox"/> Knowledge Deck cards, Mesa Verde Long Ago (24) <input type="checkbox"/> Knowledge Deck poster, Mesa Verde Long Ago (1)</p> <p>School-Supplied Items None</p>
Resources	None
Preparation	<input type="checkbox"/> Prepare to distribute a copy of the End-of-Module Assessment to each student.

Lesson 36

Materials	<p>Kit Items None</p> <p>School-Supplied Items <input type="checkbox"/> Scissors (1)</p>
Resources	<input type="checkbox"/> Lesson 36 Resource: Recurring Themes and Concepts Cards
Preparation	<p><input type="checkbox"/> Score End-of-Module Assessment and write individual feedback.</p> <p><input type="checkbox"/> Select at least one End-of-Module Assessment item for the class to debrief, and prepare a sample response for that item to share with students.</p> <p><input type="checkbox"/> Prepare Systems and Cause and Effect cards. (See Lesson 36 Resource.)</p> <p><input type="checkbox"/> Select student work products that show evidence of learning, and display them in different areas of the classroom. Student work products may include the anchor model, class charts, and selected Science Logbook pages.</p>

Life | Works Cited

Arnold, Caroline. 2015. *A Day and Night in the Desert*. Mankato, MN: Capstone. [All references to *A Day and Night in the Desert* are from this source.]