

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*® materials kit or they may be school supplied. In addition to the listed materials, teachers should have access to the following common classroom items: sticky notes, chart paper, pencils, a whiteboard, and markers. This section also lists items in the current lesson that are reused in future lessons. Note that items found in a typical elementary classroom (e.g., glue, tape, scissors) are not listed for reuse.

Preparation: This section identifies preparation teachers should complete before the lesson, including resources teachers should gather or cue. This section has two subsections:

- **Resources:** This subsection lists module resources (from Appendix A 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, PhD Projected. A symbol (☐) identifies resources that appear in PhD Projected. The Teacher Resource Pack provides additional supports and directions for some investigations as well as Spanish support resources with alternatives for Spanish-speaking students. The Teacher Resource Pack is available at <https://greatminds.org/resources>.
- **Preparation:** This subsection lists media teachers must cue before the lesson, activities that require setup, and items in the current lesson that are reused in future lessons. Note that items found in a typical elementary classroom (e.g., glue, tape, scissors) are not listed for reuse. This subsection 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 Setup section for Lesson 10. A symbol (⏰) identifies lessons with advance preparation notes.

Advance Materials Preparation





An activity in this module requires 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. (See Lesson 4 Resource A.)
4	1 day	Flower Investigation	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. (See Lesson 6 Resource C.)
11	1 day	Bell Pepper Demonstration	Prepare to bring in a green bell pepper for bell pepper demonstration.

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). 	
	<p>Advance Preparation for Lesson 4 8 Days Before: Plant two bean seeds to grow for demonstration. (See Lesson 4 Resource A.)</p> <p>Advance Preparation for Lesson 6 8 Days Before: Prepare bean plants for Science Challenge. (See Lesson 6 Resource C.)</p>	


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"> ○ Stickers for student models (24 sets) 	School Supplied Items <input type="checkbox"/> Scissors (1)
Resources	<input type="checkbox"/> Lesson 2 Resource: Wonderland of Rocks and Mara Cutouts (optional)	
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	<p>Kit Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Life in the Mojave Desert anchor model components (<i>PhD Science</i> exclusive) <ul style="list-style-type: none"> ○ Fastener dots, $\frac{3}{8}$" (22) ○ Fastener dots, $\frac{7}{8}$" (67) ○ Felt board (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) ○ Large rock figures (3) ○ Man and woman figures (1 each) ○ Pinyon pine figure (1) ○ Pond figure (1) ○ 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) ○ Water symbols (3) 	<p>School Supplied Items</p> <p>None</p>
	<p>Item Reuse</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 16 requires 2 of the prepared deer grass anchor model components and the prepared honey mesquite, pinyon pine, pond, Oasis of Mara, light, and water anchor model components. <input type="checkbox"/> Lesson 24 requires the prepared bighorn sheep, chuckwalla, western yellow bat, and air anchor model components. <input type="checkbox"/> Lesson 28 requires the prepared man and woman anchor model components. 	
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 	



Lesson 3 (continued)

<p>Preparation</p> 	<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> <p>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.</p>	





Lesson 4

<p>Materials</p>	<p>Kit Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Plant containers, plastic, four-pot (10) <input type="checkbox"/> Grow lamp, two headed (1) <input type="checkbox"/> Scarlet runner bean seeds (2) <input type="checkbox"/> Spray bottle (1) <input type="checkbox"/> Tape, electrical, black (partial roll, optional) <input type="checkbox"/> Trays, plastic, 8" × 10" (5) 	<p>School Supplied Items</p> <ul style="list-style-type: none"> <input type="checkbox"/> Container, 16 oz (1) <input type="checkbox"/> Plant stems with flowers (18) <input type="checkbox"/> Potting soil (20 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 6 requires the grow lamp, spray bottle, and prepared plant containers on trays. 		
<p>Resources</p>	<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  	
<p>Preparation</p>	<ul style="list-style-type: none"> <input type="checkbox"/> (Optional) Prepare plant parts cards. (See Lesson 4 Resource F.) 	

Lesson 5

Materials	Kit Items <input type="checkbox"/> Magnifiers, handheld, plastic (24)	School Supplied Items <input type="checkbox"/> Scissors (1)
Resources	<input type="checkbox"/> Lesson 4 Resource B: Mojave Desert Plants Photographs  <input type="checkbox"/> Lesson 5 Resource A: Texas Plants Photographs  <input type="checkbox"/> Lesson 5 Resource B: Texas Native Plants Cards <input type="checkbox"/> Lesson 5 Resource C: Mojave Desert Trees and Plants with Flowers Photographs	
Preparation	<input type="checkbox"/> Prepare Texas native plants cards for sorting activity. (See Lesson 5 Resource B.) <input type="checkbox"/> Prepare Mojave Desert Trees and Plants with Flowers Photographs for partner activity. (See Lesson 5 Resource C.)	

Lesson 6

Materials	Kit Items <input type="checkbox"/> Boxes, cardboard, 12" × 12" × 12" (2) <input type="checkbox"/> Dowels, wooden, 12" (32) <input type="checkbox"/> Grow lamp, two-headed (1) <input type="checkbox"/> Scarlet runner bean seeds (38) <input type="checkbox"/> Spray bottle (1) <input type="checkbox"/> Tape, electrical, black (partial roll, optional)	School Supplied Items <input type="checkbox"/> Container, 16 oz (1) <input type="checkbox"/> Scissors (1) <input type="checkbox"/> Tape, clear (partial roll) <input type="checkbox"/> Water (access)
	Prepared Items from Previous Lessons <input type="checkbox"/> Plant containers on trays from Lesson 4	
	Item Reuse <input type="checkbox"/> Lesson 7 requires the cardboard boxes, grow lamp, spray bottle, prepared plastic trays with bean plants, and prepared additional no-light labels.	
Resources	<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 	
Preparation	<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



Materials	Kit Items <input type="checkbox"/> Grow lamp, two-headed (1) <input type="checkbox"/> Spray bottle (1)	School Supplied Items <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)
	Prepared Items from Previous Lessons <input type="checkbox"/> Additional no-light labels from Lesson 4 (1 each) <input type="checkbox"/> Assembled cardboard boxes from Lesson 6 (2) <input type="checkbox"/> Plastic trays with bean plants from Lesson 6 (4)	
	Item Reuse <input type="checkbox"/> Lesson 8 requires the prepared Science Challenge materials. <input type="checkbox"/> Lesson 19 requires the Day 1 and Day 7 Science challenge results photographs from Lesson 7 Resource B.	
Resources	<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)	
Preparation	<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




Materials	Kit Items None	School Supplied Items None
	Prepared Items from Previous Lessons <input type="checkbox"/> Science Challenge materials from Lesson 7 <input type="checkbox"/> Class weather calendar from Module 1 displaying at least 1 week of weather data	
	Item Reuse <input type="checkbox"/> Lesson 9 requires the prepared Science Challenge materials.	
Resources	<input type="checkbox"/> Lesson 6 Resource A: Science Challenge Rubric <input type="checkbox"/> Lesson 7 Resource B: Science Challenge Results Photographs (optional)	
Preparation	<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	Kit Items None	School Supplied Items None
	Prepared Items from Previous Lessons <input type="checkbox"/> Science Challenge materials from Lesson 7	
Resources	<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	<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	Kit Items None	School Supplied Items <input type="checkbox"/> Scissors (1)
	Module 1 Kit <input type="checkbox"/> Sentence strip (1)	
Resources	<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 	<input type="checkbox"/> Prepare healthy and unhealthy plant cards. (See Lesson 10 Resource.) Advance Preparation for Lesson 11 1 Day Before: Prepare to bring in a green bell pepper for bell pepper demonstration.	




Lesson 11

Materials	Kit Items None	School Supplied Items <ul style="list-style-type: none"> <input type="checkbox"/> Bell pepper (1) <input type="checkbox"/> Glue stick (1) <input type="checkbox"/> Knife (1) <input type="checkbox"/> Paper towels (12 sheets) <input type="checkbox"/> Scissors (1) <input type="checkbox"/> Spoon (1)
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 11 Resource A: Faultline Farm Photographs  <input type="checkbox"/> Lesson 11 Resource B: Seed Packet Illustrations  <input type="checkbox"/> Lesson 11 Resource C: Plant Growth Cards <input type="checkbox"/> Lesson 11 Resource D: Mango Tree Growth Cards 	
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare plant growth cards. (See Lesson 11 Resource C.) <input type="checkbox"/> Prepare mango tree growth cards. (See Lesson 11 Resource D.) <input type="checkbox"/> Cue bell pepper growing video (http://phdsci.link/1890).  	



Lesson 12

Materials	Kit Items None	School Supplied Items <ul style="list-style-type: none"> <input type="checkbox"/> Scissors (1)
Resources	Item Reuse <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 24 requires the prepared living things chart. 	
Resources	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 11 Resource B: Seed Packet Illustrations  <input type="checkbox"/> Lesson 12 Resource A: Seedling Photographs  <input type="checkbox"/> Lesson 12 Resource B: Scarlet Runner Bean Seedling and Adult Plant Photographs  <input type="checkbox"/> Lesson 12 Resource C: Seedling and Adult Plant Cards <input type="checkbox"/> Lesson 12 Resource D: Adult Green Pea Plant Photograph  <input type="checkbox"/> Lesson 12 Resource E: Adult Bell Pepper and Pumpkin Plant Photographs  <input type="checkbox"/> Lesson 12 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 12 Resource C.) 	


Lesson 13

Materials	Kit Items <input type="checkbox"/> Binder rings (24) <input type="checkbox"/> Knowledge Deck™ cards, Joshua Trees (24) <input type="checkbox"/> Knowledge Deck poster, Joshua Trees (1) Module 1 Kit <input type="checkbox"/> Sticky note arrows (48)	School Supplied Items None
	Item Reuse <input type="checkbox"/> Lesson 14 requires the Joshua Trees Knowledge deck cards and poster.	
Resources	<input type="checkbox"/> Lesson 13 Resource A: Radish Plant Photograph  <input type="checkbox"/> Lesson 13 Resource B: Rainfall Data for Twentynine Palms 	
Preparation	<input type="checkbox"/> Cue Wonderland of Rocks water search video (http://phdsci.link/1657). 	

Lesson 14

Materials	Kit Items <input type="checkbox"/> Knowledge Deck cards, Desert Fan Palms (24) <input type="checkbox"/> Knowledge Deck poster, Desert Fan Palms (1) Module 1 Kit <input type="checkbox"/> Sticky note arrows (48)	School Supplied Items None
	Item Reuse <input type="checkbox"/> Lesson 15 requires the Desert Fan Palms Knowledge deck cards and poster.	
Resources	<input type="checkbox"/> Lesson 13 Resource B: Rainfall Data for Twentynine Palms 	
Preparation	<input type="checkbox"/> Cue Mara water search video (http://phdsci.link/1658). 	




Lesson 15

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>Module 1 Kit</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sentence strips (2) 	<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 13 Resource B: Rainfall Data for Twentynine Palms  <input type="checkbox"/> Lesson 15 Resource A: Desert Environment Sheets <input type="checkbox"/> Lesson 15 Resource B: Desert Plant Cards 	
Preparation	<ul style="list-style-type: none"> <input type="checkbox"/> Prepare to distribute a copy of Lesson 15 Resource A to each student pair. <input type="checkbox"/> Prepare desert plant cards. (See Lesson 15 Resource B.) 	




Lesson 16

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>
Resources	<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) ○ Light symbols (2) ○ Water symbols (3) 	
Preparation	<p>None</p>	

Lesson 17

Materials	Kit Items	School Supplied Items
	None	None
Resources	<input type="checkbox"/> Lesson 17 Resource A: Grape Plant Photograph  <input type="checkbox"/> Lesson 17 Resource B: Grapevines on Building Photograph  <input type="checkbox"/> Lesson 17 Resource C: Conceptual Checkpoint  <input type="checkbox"/> Lesson 17 Resource D: Plant Growing from Pavement Photograph (optional)	
Preparation	<input type="checkbox"/> Prepare to distribute a copy of Lesson 17 Resource C to each student.	


Lesson 18

Materials	Kit Items	School Supplied Items
	None	<input type="checkbox"/> Scissors (1)
Resources	<input type="checkbox"/> Lesson 18 Resource A: Bighorn Sheep Photograph  <input type="checkbox"/> Lesson 18 Resource B: Mojave Desert Animals Cards <input type="checkbox"/> Lesson 18 Resource C: Scientist’s Notebook Page 	
Preparation	<input type="checkbox"/> Cue bighorn sheep introduction video (Nuber 2018) (http://phdsci.link/1670) and bighorn sheep actions video (http://phdsci.link/1671).  <input type="checkbox"/> Prepare Mojave Desert animals cards. (See Lesson 18 Resource B.)	



Lesson 19

Materials	Kit Items	School Supplied Items
	None	None
Resources	<input type="checkbox"/> Lesson 7 Resource B: Science Challenge Results Photographs—Day 1 and Day 7  <input type="checkbox"/> Lesson 19 Resource: Baby Desert Animal Photographs 	
Preparation	<input type="checkbox"/> Cue black-tailed jackrabbit video (http://phdsci.link/1672) and desert tortoise video (http://phdsci.link/1673). 	

Lesson 20

Materials	<p>Kit Items</p> <p>None</p> <p>Module 1 Kit</p> <p><input type="checkbox"/> Sentence strips (2)</p>	<p>School Supplied Items</p> <p><input type="checkbox"/> Glue sticks (24)</p> <p><input type="checkbox"/> Scissors (1)</p>
Resources	<p><input type="checkbox"/> Lesson 18 Resource C: Scientist’s Notebook Page</p> <p><input type="checkbox"/> Lesson 20 Resource A: Animal Action Cards</p> <p><input type="checkbox"/> Lesson 20 Resource B: Chimpanzees Finding Food Photographs </p>	
Preparation	<p><input type="checkbox"/> Prepare animal action cards. (See Lesson 20 Resource A.)</p>	

Lesson 21

Materials	<p>Kit Items</p> <p>None</p>	<p>School Supplied Items</p> <p><input type="checkbox"/> Scissors (1)</p> <p><input type="checkbox"/> Tape, clear (partial roll)</p>
Resources	<p><input type="checkbox"/> Lesson 19 Resource: Baby Desert Animal Photographs—Bighorn Sheep </p> <p><input type="checkbox"/> Lesson 21 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 21 Resource.)</p>	



Lesson 22

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



Lesson 23

Materials	Kit Items None	School Supplied Items <input type="checkbox"/> Scissors (1)
	Module 1 Kit <input type="checkbox"/> Sentence strip (1)	
	Item Reuse <input type="checkbox"/> Lesson 24 requires the prepared big horn sheep, chuckwalla, and western yellow bat Mojave Desert animal needs cards.	
Resources	<input type="checkbox"/> Lesson 23 Resource A: Mojave Desert Animal Comparison Cards <input type="checkbox"/> Lesson 23 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 23 Resource A.) <input type="checkbox"/> Prepare Mojave Desert animal needs cards. (See Lesson 23 Resource B.)	


Lesson 24

Materials	Kit Items None	School Supplied Items None
	Module 1 Kit <input type="checkbox"/> Sentence strips (2)	
	Prepared Item from Previous Lessons <input type="checkbox"/> Bighorn sheep, chuckwalla, and western yellow bat Mojave Desert animal needs cards from Lesson 23 (12 each) <input type="checkbox"/> Living things chart from Lesson 12 <input type="checkbox"/> Anchor model components from Lesson 3 <ul style="list-style-type: none"> ○ Bighorn sheep figure (1) ○ Chuckwalla figure (1) ○ Western yellow bat figure (1) ○ Air symbols (2) 	
	Item Reuse <input type="checkbox"/> Lesson 29 requires the prepared living things chart.	
Resources	<input type="checkbox"/> Lesson 19 Resource: Baby Desert Animal Photographs—Bighorn Sheep  <input type="checkbox"/> Lesson 24 Resource: Mojave Desert Environment Photographs 	
Preparation	None	


Lesson 25

Materials	Kit Items None	School Supplied Items <input type="checkbox"/> Scissors (1)
Resources	<input type="checkbox"/> Lesson 25 Resource A: Squirrel Card <input type="checkbox"/> Lesson 25 Resource B: Conceptual Checkpoint  <input type="checkbox"/> Lesson 25 Resource C: Park Animals Illustrations	
Preparation	<input type="checkbox"/> Prepare squirrel cards. (See Lesson 25 Resource A.) <input type="checkbox"/> Prepare to distribute a copy of Lesson 25 Resource B to each student. <input type="checkbox"/> Cue squirrel video (http://phdsci.link/1688). 	


Lesson 26

Materials	Kit Items None Module 1 Kit <input type="checkbox"/> Sentence strips (2)	School Supplied Items <input type="checkbox"/> Glue sticks (24) <input type="checkbox"/> Scissors (1)
Resources	<input type="checkbox"/> Lesson 26 Resource A: Human Action Cards <input type="checkbox"/> Lesson 26 Resource B: Humans Photograph 	
Preparation	<input type="checkbox"/> Prepare human action cards. (See Lesson 26 Resource A.)	



Lesson 27

Materials	Kit Items None	School Supplied Items None
	Item Reuse <input type="checkbox"/> Lesson 28 requires the prepared natural resources chart.	
Resources	None	
Preparation	<input type="checkbox"/> Cue food, water, and shelter video (http://phdsci.link/1720). 	



Lesson 28

Materials	Kit Items	School Supplied Items
	<input type="checkbox"/> Knowledge Deck cards, Basketmaking (24) <input type="checkbox"/> Knowledge Deck poster, Basketmaking (1)	None
	Prepared Items from Previous Lessons	
	<input type="checkbox"/> Anchor model components from Lesson 3 <ul style="list-style-type: none"> ○ Man and woman figures (1 each) <input type="checkbox"/> Natural resources chart from Lesson 27	
Resources	None	
Preparation	<input type="checkbox"/> Cue clothing and tools video (http://phdsci.link/1721). 	




Lesson 29

Materials	Kit Items	School Supplied Items
	None	None
	Module 1 Kit	
	<input type="checkbox"/> Sentence strip (1)	
	Prepared Items from Previous Lessons	
	<input type="checkbox"/> Living things class chart from Lesson 24	
Resources	<input type="checkbox"/> Lesson 29 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 30

Materials	Kit Items <input type="checkbox"/> Magnifier, handheld, plastic (24) <input type="checkbox"/> Rocks, gneiss, granite, limestone, obsidian, pumice, sandstone, scoria, shale (3 each) Module 1 Kit <input type="checkbox"/> Gravel (1 cup) <input type="checkbox"/> Safety goggles, student (24) <input type="checkbox"/> Safety goggles, teacher (1)	School Supplied Items <input type="checkbox"/> Bags, resealable plastic, 1 qt (24) <input type="checkbox"/> Pencils, colored (12 sets) <input type="checkbox"/> Rocks (144-192)
	Prepared Items from Previous Lessons <input type="checkbox"/> Properties of objects and materials chart from Module 1 Weather	
Resources	<input type="checkbox"/> Lesson 30 Resource A: Barker Dam Reservoir Photograph  <input type="checkbox"/> Lesson 30 Resource B: Rock Collections Setup Instructions <input type="checkbox"/> Lesson 30 Resource C: Barker Dam Photograph 	
Preparation	<input type="checkbox"/> Prepare rock collections A and B. (See Lesson 30 Resource B.)	


Lesson 31

Materials	Kit Items <input type="checkbox"/> Food coloring (10 drops) <input type="checkbox"/> Test tubes with caps, clear plastic, 40 mL (36)	School Supplied Items <input type="checkbox"/> Hot chocolate powder (5 tbsp) <input type="checkbox"/> Tape, masking (partial roll) <input type="checkbox"/> Water (access)
Resources	<input type="checkbox"/> Lesson 31 Resource A: Water Sample Setup Instructions <input type="checkbox"/> Lesson 31 Resource B: Water Scientist Photograph  <input type="checkbox"/> Lesson 31 Resource C: Mojave Desert Water Sources Photographs  <input type="checkbox"/> Lesson 31 Resource D: Water at Barker Dam Photograph 	
Preparation	<input type="checkbox"/> Prepare water samples. (See Lesson 31 Resource A.)	

Lesson 32

Materials	Kit Items None	School Supplied Items <input type="checkbox"/> Scissors (1)
Resources	<input type="checkbox"/> Lesson 32 Resource A: School Activity Photographs  <input type="checkbox"/> Lesson 32 Resource B: School Activity Photographs with Labels (optional) <input type="checkbox"/> Lesson 32 Resource C: Conceptual Checkpoint  <input type="checkbox"/> Lesson 32 Resource D: Natural Resource Photographs 	
Preparation	<input type="checkbox"/> Prepare to distribute a copy of Lesson 32 Resource C to each student.	


Lesson 33

Materials	Kit Items None	School Supplied Items <input type="checkbox"/> Scissors (1)
Resources	<input type="checkbox"/> Lesson 33 Resource: Key Term Cards	
Preparation	<input type="checkbox"/> Prepare key term cards. (See Lesson 33 Resource.) <input type="checkbox"/> Cue Mojave Desert flyover video (http://phdsci.link/1628) and Mara flyover video (http://phdsci.link/1630). 	

Lesson 34

Materials	Kit Items None 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)	School Supplied Items None
Resources	None	
Preparation	None	

Lesson 35

Materials	Kit Items None	School Supplied Items <input type="checkbox"/> Scissors (1)
Resources	<input type="checkbox"/> Lesson 35 Resource: Systems Card 	
Preparation	<input type="checkbox"/> Score End-of-Module Assessment and write individual feedback. <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. <input type="checkbox"/> Prepare systems card. (See Lesson 35 Resource.) <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.	

Works Cited

Arnold, Caroline. 2015. *A Day and Night in the Desert*. Mankato, MN: Capstone.

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