INTRODUCTION

The Sun, Moon, and Planets kit contains

- Teacher Toolkit: Sun, Moon, and Planets
  1 Investigations Guide: Sun, Moon, and Planets
  1 Teacher Resources: Sun, Moon, and Planets
  1 FOSS Science Resources: Sun, Moon, and Planets

- FOSS Science Resources: Sun, Moon, and Planets (class set of student books)

- Equipment for 32 students

A new kit contains enough consumable items for at least two classroom uses before you need to restock. FOSS modules use central materials distribution. You organize all the materials for an investigation on a single table called the materials station. As the investigation progresses, one member of each group gets materials as they are needed, and another returns the materials when the investigation is completed. You place items at the station—students do the rest.

Individual photos of each piece of FOSS equipment are available online for printing. For updates to information on materials used in this module and access to the Materials Safety Data Sheets (MSDS), go to www.FOSSweb.com. Links to replacement-part lists and customer service are also available on FOSSweb.

NOTE
Delta Education Customer Service can be reached at 1-800-258-1302.
**KIT INVENTORY List**

### Drawer 1—permanent equipment

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Toolkit: Sun, Moon, and Planets (1 Investigations Guide, 1 Teacher Resources, and 1 FOSS Science Resources: Sun, Moon, and Planets)</td>
<td>1</td>
</tr>
<tr>
<td>FOSS Science Resources: Sun, Moon, and Planets, student books *</td>
<td>32</td>
</tr>
<tr>
<td>Ball, plastic</td>
<td>1</td>
</tr>
<tr>
<td>Balls, white, polystyrene</td>
<td>20</td>
</tr>
<tr>
<td>Cardboard sheets</td>
<td>16</td>
</tr>
<tr>
<td>Cups, plastic, 250 mL</td>
<td>20</td>
</tr>
<tr>
<td>Cut-and-stick Moons set, 35/set</td>
<td>1</td>
</tr>
<tr>
<td>Flashlights</td>
<td>16</td>
</tr>
<tr>
<td>Glue sticks ✪</td>
<td>24</td>
</tr>
<tr>
<td>Lamp, clip-on, without shade</td>
<td>1</td>
</tr>
<tr>
<td>Lightbulb, frosted, 60 watt</td>
<td>1</td>
</tr>
<tr>
<td>Marking pen, dry-erase, whiteboard</td>
<td>1</td>
</tr>
<tr>
<td>Posters, Moon Calendar</td>
<td>2</td>
</tr>
<tr>
<td>Poster, Moon phases, 4 sheets/set</td>
<td>1</td>
</tr>
<tr>
<td>Posters, FOSS Science Safety and Outdoor Safety</td>
<td>2</td>
</tr>
<tr>
<td>Protractors</td>
<td>16</td>
</tr>
<tr>
<td>Solar system cards, 18/set</td>
<td>16</td>
</tr>
<tr>
<td>Solar System Lithograph Set, 20/set</td>
<td>1</td>
</tr>
<tr>
<td>Straws, short, slim</td>
<td>50</td>
</tr>
<tr>
<td>Zip bags, 1 L</td>
<td>25</td>
</tr>
<tr>
<td>Zip bags, 4 L</td>
<td>10</td>
</tr>
</tbody>
</table>

### Drawer 1—consumable equipment

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chalk, sidewalk</td>
<td>16</td>
</tr>
<tr>
<td>Transparent tape, roll</td>
<td>1</td>
</tr>
</tbody>
</table>
### Drawer 2—permanent equipment

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA cells</td>
<td>32</td>
</tr>
<tr>
<td>Compasses, magnetic</td>
<td>16</td>
</tr>
<tr>
<td>Droppers, plastic</td>
<td>18</td>
</tr>
<tr>
<td>Earth globes, 12 cm diameter</td>
<td>9</td>
</tr>
<tr>
<td>Glass domes</td>
<td>18</td>
</tr>
<tr>
<td>Golf tees</td>
<td>20</td>
</tr>
<tr>
<td>Hand lenses, 3-power</td>
<td>16</td>
</tr>
<tr>
<td>Marbles, clear glass</td>
<td>18</td>
</tr>
<tr>
<td>Meter tapes</td>
<td>16</td>
</tr>
<tr>
<td>Plastic pieces, clear</td>
<td>18</td>
</tr>
<tr>
<td>Straws, superjumbo</td>
<td>25</td>
</tr>
<tr>
<td>String, ball</td>
<td>1</td>
</tr>
<tr>
<td>Vials with caps, small</td>
<td>18</td>
</tr>
</tbody>
</table>

**Equipment Condition**

*These items might occasionally need replacement.*

_Sun, Moon, and Planets Module_
MATERIALS Supplied by the Teacher

Each part of each investigation has a Materials section that describes the materials required for that part. It lists materials needed for each student or group of students and for the class.

Be aware that you must supply some items. These are indicated with an asterisk (*) in the materials list for each part of the investigation. Here is a summary list of those items by investigation.

For all investigations
- Chart paper and marking pen
- Computer with Internet access
- Drawing utensils (pencils, colored pencils, marking pens)
- Earth globe 23–30 cm diameter (optional)
- Glue sticks (if you need additional)
- 1 Projection system (with Internet access)
- Science notebooks (composition books)
- Scissors
- Self-stick notes (for review sessions)

Investigation 1: Sun and Earth
- 1 Extension cord (optional)
- 1 File or small knife
- Painter’s tape
- 1 Rolling cart (optional)
- 1 Ruler
- Scratch paper
- 8 Straight edges
- 1 Watch or clock
- White glue
- 1 Piece of white paper

Investigation 2: Earth’s Moon
- Calculators
- 1 Extension cord (optional)
- Overhead projector (optional)

Investigations 4: Patterns in the Sky
- 1 Extension cord (optional)
- 1 Pitcher or bucket
- Newspaper sheets
- Water
PREPARING the Kit for Your Classroom

Some preparation is required each time you use the kit. Doing these things before beginning the module will make daily setup quicker and easier.

1. **Check consumable materials**
   A number of items in the kit are listed as consumable. Some of these items will be used up during the investigations (chalk, transparent tape), and others will wear out and need replacement (glue sticks, zip bags, cells). Before throwing items out, consider ways to recycle them, and get your students involved in this process.

2. **Inventory parts**
   A number of small pieces of equipment need to be inventoried (hand lenses, marbles, droppers, glass domes, plastic pieces, golf tees). Do this at the beginning of the module, and have students do this after each investigation.

3. **Check compasses**
   Check the compasses to make sure they all work properly (the needle points to north). Test them away from any metal objects.

4. **Check flashlights and AA cells**
   Check the condition of the flashlights and AA cells, and replace the cells as necessary. Make sure the flashlights are turned off.

5. **Inventory golf tees**
   Make sure you have a golf tee for each pair of students and one for the class.

6. **Check consumable materials**
   Inventory the sidewalk chalk. Each pair of students will need a piece of chalk. Check the supply of tape and glue sticks.

7. **Clean Moon Calendar**
   Make sure the Moon Calendar is wiped clean and ready for use.

8. **Inventory posters and lithograph set**
   There are a number of posters and one set of lithographs in the kit. Make sure all the sets are complete. The Moon-phase poster has four sheets. The lithograph set has 20 sheets.

9. **Inventory solar system cards**
   There are 16 sets of solar system cards, each set with 18 cards. Inventory each set to make sure it is complete.

10. **Obtain an overhead projector**
    An overhead projector is used in several activities as a light source.
11. Plan to review safety issues indoors and outdoors
Two safety posters are included in the kit—Science Safety and Outdoor Safety. You should review the guidelines with students and post the posters in the room as a reminder. Getting Ready for Investigation 1, Part 1, offers suggestions for this discussion. Also be aware of any allergies that students in your class might have.

12. Photocopy notebook sheets
You will need to make copies of notebook sheets before each investigation. See Getting Ready for Investigation 1, Part 1, for ways to organize the notebook sheets for this module. If you use a projection system, you can download electronic copies of the sheets from www.FOSSweb.com.

13. Plan for word wall or pocket chart
As the module progresses, you will add new vocabulary words to a word wall or pocket chart and model writing and responding to focus questions. Plan how you will do this in your classroom.

14. Send a letter home to families
The first teacher master is a letter you can use to inform families about this module. The letter states the goals of the module and suggests some home experiences that can contribute to their child’s learning. Space is left at the top so you can copy the letter on your school letterhead.

15. Prepare for home/school connections
There is a home/school connection for most investigations. Check the last page of each investigation for details and when to send copies home with students.

16. Check FOSSweb for resources
Go to FOSSweb and review the print and digital resources available for this module.
CARE, Reuse, and Recycling

When you finish teaching the module, inventory the kit carefully. Note the items that were used up, lost, or broken, and immediately arrange to replace the items. Use a photocopy of the materials list (the Kit Inventory List), and put your marks in the “Equipment Condition” column. Refill packages and replacement parts are available for FOSS by calling Delta Education at 1-800-258-1302 or by using the online replacement-part catalog (www.DeltaEducation.com).

Standard refill packages of consumable items are available from Delta Education. A refill package for a module includes sufficient quantities of all consumable materials (except those provided by the teacher) to use the kit with two classes of 32 students.

Here are a few tips on storing the equipment after use.

- Rebag polystyrene balls and straws.
- Check the compasses and put them in boxes.
- Take posters and calendars down from your classroom walls and store them flat in the bottom of the kit drawer.
- Rebag the cut-and-stick Moons.
- Check the bags of lens materials. Be sure the water has been emptied from the small vials.
- Check the quantity of consumables, and order more if necessary.

The items in the kit have been selected for their ease of use and durability. Small items should be inventoried (a good job for students under your supervision) and put in zip bags for storage. Any items that are no longer useful for science should be properly recycled. This is a good opportunity to get students involved in making decisions about what items can be recycled.
SUN, MOON, AND PLANETS — Materials

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Full Option Science System