5. Students make predictions.
Tell students that the word *planet* comes from the ancient Greek word meaning “wanderer.” Tell students that planets orbit around the Sun, just as Earth does. Thus, their position in the sky changes from week to week and month to month. Planets that are closer to the Sun change position in less time than planets that are farther away.

**Assessment**
Ask: **How helpful do you think your sky map will be three months from now?** *(Sample answer: The planets will have moved, so the sky map will need to be changed.)*

### World’s Largest Meteorites

#### 20 minutes  
**Whole Class**

**Objectives**
- Students analyze data by plotting meteorite strikes on a map.
- Students communicate data by constructing a bar graph.

**Materials**
- For each student: 1 sh. *graph paper*
- For the class: *markers, posters, planets,*  
  *self-stick notes,*  
  *world map*

*Not provided in kit*

**Student Resource**
- 1.5 *World’s Largest Meteorites*

**Inquiry Focus**
- Analyze Data

#### In Advance
- Display the planet posters.
- Post a map of the world that students may stick notes to.

1. **Distribute Student Resource.**
   Make copies of Student Resource 1.5, *World’s Largest Meteorites,* and distribute to students.
2. Review objects in the solar system.
Direct student attention to the planet posters. Ask: What objects are in the solar system, other than planets and the Sun? (moons, meteors, asteroids, comets) Have students take out the Vocabulary Resource page. Review as a class the definitions of asteroid, comet, meteor, and meteorite. Explain that, of all of these objects, meteorites are the only ones that reach Earth’s surface.

3. Students plot meteorite strikes on map.
Using the data from the World’s Largest Meteorites Resource page, have student pairs take turns plotting meteorite strikes by country on the world map using self-stick notes. The table does not give exact locations, so students should place the note anywhere in the country named. Write the relative sizes of the meteorites on the note.

4. Students analyze meteorite maps.
Ask: Do you see any patterns in the data? (Students may note that Greenland had two of the largest meteorites. Tell them that these are two of several pieces of the same object, which broke up in Earth’s atmosphere.) Ask: Where did all of these meteorites strike Earth? (on land) Ask: Why do you think that is? (Student ideas will vary.) Explain that meteorites are more likely to hit the ocean than to hit land, because much more of Earth’s surface is ocean. Ask: Why did all of the meteorites listed in the chart hit land? (Guide discussion to help students realize that meteorites that hit the ocean usually are not found.)

5. Students make bar graphs.
Hand out graph paper. Have students use the data in the table to make bar graphs comparing the sizes of the meteorites in the table. As needed, model how to label the graph’s axes on the board. The horizontal axis should be the location of each meteorite, the vertical axis should be the number of tons. Help students figure out an appropriate scale for their vertical axis, based on the largest value in the table.

Assessment
Ask: What is a meteorite? (A rock that made it through Earth’s atmosphere and hit the ground.)
Music Link

Obtain a recording of The Planets, op. 32, by Gustav Holst, from a library. In class, play one to two minutes of the pieces “Mars,” “Venus,” and “Jupiter.” Do not tell students the music is about planets. Working in small groups, have students write a sentence or phrase, describing what each piece sounds like. (Sample answer: thunder, bats in a castle) Compare ideas on each piece. Then tell students that the entire piece of music is about seven planets (Earth and Pluto are excluded) as they are portrayed in ancient mythology. Play each piece again and have students guess which planet each is about.

Section Assessment

Materials
For each student
1 compass, drawing (optional)
1 ruler, metric
*Not provided in kit

Student Resource
• 1.6 Section 1 Assessment

1. Make copies of Student Resource 1.6, Section 1 Assessment. Distribute a copy of the assessment, a metric ruler, and a compass (if compasses were used during Investigate 1) to each student. Make sure each student has a sharp pencil for the hands-on portion of the assessment. If you do not have enough metric rulers for every student, have half of the students start with question 5 and use the rulers first.

2. Allow each student to complete the assessment independently.

3. Discuss the answers as a whole-class activity.