

# Earth Science Grade 1 Explorations

## Teacher's Outline with Answers

**Teacher/Parent:** This is not a quiz. This is a chance for you to explore the key concepts with your student to you can understand what they know and where they still need work. Read each question aloud and do the action and invite the students discuss their answers with you to help them answer the questions. Answers and/or experiment references given in parenthesis. If you've completed the lab experiments, then you should have no trouble answering these questions. Feel free to grab the materials you used in the lab experiments as you go through the questions together.

### Materials:

- Tennis ball
- Beach Ball
- Flashlight
- Stick
- Piece of paper
- Pencil

### Questions to Explore Together:

1. How can the shadow cast by the sun to tell time? (Refer to *Sundial* Experiment and use the flashlight for the sun and the stick and paper to make a quick sundial.)
2. The moon appears to change size and shape in the sky. Use the flashlight and balls to teach your parent/teacher what the truth about this really is. (Refer to *Phases of the Moon* Experiment.)
3. Using the beach ball for the earth, put a sticker or piece of tape to show where you live on the ball (or use a globe if you have one). Using a flashlight for the sun, demonstrate to your parent/teacher the reason that we have seasons. (Refer to *Seasons* Experiment.)
4. What are four things you might look for to tell if a rock is a meteorite? (Most meteorites are small, look like splashed metal, are attracted to a magnet, are small, non-porous (no holes), and are dark.)

# Earth Science Grade 1 Evaluation

## Student Worksheet

(Teacher: You'll need to go over the instructions with the kids and work with them on this part.)

**Overview:** You're going to show your teacher how much of this science stuff you already know. Choose one of the following activities:

- a. Make up a short story about the earth, sun, and moon system and include eclipses and transits. You can act it out if you want to with costumes and everything.
- b. Draw a poster that teaches why we have seasons on earth and shows people the most common misconception in this area (misconception: the seasons are caused by how close the earth is to the sun). When you're finished, you'll use it to teach your parent or teacher and demonstrate what you've learned.
- c. Perform a science experiment from this section that you learned the most from and run it as a science fair project that teaches others. Expand on it to include new discoveries you've made and include your audience.