

# Greetings, Family!

Our science class will learn about weather and space in our unit on Earth Sciences.

You can help make science come alive for your student by letting him or her be a “weather tracker” at home. Find a three- or five-day weather forecast for your area and have your student compare the forecast with the actual weather conditions on those days. Also, help your student identify constellations that may be visible in the night sky.

For this unit, we will be doing some hands-on activities about telescopes, the solar system, and weather using the materials listed below. Can you donate or loan any of these items? If so, we need to receive your items by \_\_\_\_\_.

- cardboard tubes
- small plastic-foam balls
- toothpicks
- tape measures
- balloons
- drinking straws
- modeling clay
- small resealable plastic bags
- transparent tape

Thank you very much for your help!



## The Georgia Performance Content Standards covered by this unit are:

**S4E1a** Recognize the physical attributes of stars in the night sky such as number, size, color, and patterns.

**S4E1b** Compare the similarities and differences of planets to the stars in appearance, position, and number in the night sky.

**S4E1c** Explain why the pattern of stars in a constellation stays the same, but a planet can be seen in different locations at different times.

**S4E1d** Identify how technology is used to observe distant objects in the sky.

**S4E2a** Explain the day/night cycle of the earth using a model.

**S4E2b** Explain the sequence of the phases of the moon.

**S4E2c** Demonstrate the revolution of the earth around the sun and the earth’s tilt to explain the seasonal changes.

**S4E2d** Demonstrate the relative size and order from the sun of the planets in the solar system.

**S4E3a** Demonstrate how water changes state from solid (ice) to liquid (water) to gas (water vapor/steam) and changes from gas to liquid.

**S4E3b** Identify the temperatures at which water becomes a solid and at which water becomes a gas.

**S4E3c** Investigate how clouds are formed.

**S4E3d** Explain the water cycle (evaporation, condensation, and precipitation).

**S4E3e** Investigate different forms of precipitation and sky conditions.

**S4E4a** Identify weather instruments and explain how each is used in gathering weather data and making forecasts (thermometer, rain gauge, barometer, wind vane, anemometer).

**S4E4b** Using a weather map, identify fronts, temperature, and precipitation and use the information to interpret the weather conditions.

**S4E4c** Use observations and records of weather conditions to predict weather patterns throughout the year.

**S4E4d** Differentiate between weather and climate.