# Science GSEs: 4th Grade



## Standard: S4E3

Demonstrate the water cycle with models that illustrate many pathways that water may take and plan investigations to show the flow of energy in water as it changes states
Water activity to fulfill standard: Create six stations (clouds, ocean, soil, plants, animals, glaciers) and a dice with sides labeled so that they correspond with the six stations. Children will roll the dice to determine the station they go to and where they will learn about each phase of the water cycle. As children complete the activity, they will receive a colored bead to place on a string bracelet. Once the bracelet has one bead of each station's color, they will have completed the activity

### Standard: S4E4

- Predict weather events and infer weather patterns using weather charts, maps, and data collected
- Explain how weather instruments help to gather weather data and making forecasts
- Interpret data from weather maps
- Predict weather events through observations of cloud types
- Communicate the difference between weather and climate

Water activity to fulfill standard: Try to work with a local meteorologist to explain how they do their jobs and how they report each variable of weather readings

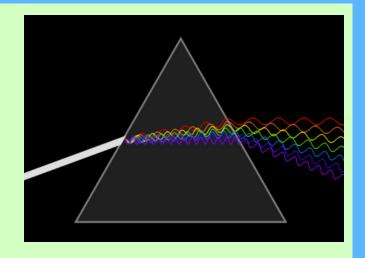
### Standard: S4L1

- Communicate info about the roles of organisms and the flow of energy in an ecosystem
- Develop models from several data sources to show food web energy flows and changes in energy flows as well as the roles of producers, consumers, and decomposers in a community
- Use a scenario to show the effects of change in an ecosystem

Water activity to fulfill standard: See activity here

### Standard: S4P1

- Explain the nature of light and how it interacts with objects
- Observe and record how light interacts with various opaque, translucent, and transparent materials



- Explore how light is reflected by a mirror at different angles
- Investigate how light is refracted by everyday items

Water activity to fulfill standard: Fill 3 different glasses with water, make one completely clear, another slightly cloudy, and the other very cloudy. Shine a light at the water at different angles and explain what is happening

Click here for Georgia's full 4th grade science standards