



TEACHER GUIDE

INTRODUCTION TO WEATHER GRADES K-2

COMMON MISCONCEPTIONS

Rain is something all young students have experienced. Many students come to school with some pre-formed ideas about rain. Some may believe that rain comes from angels crying. Another misconception is that rain occurs when clouds crash into each other. Emphasize that rain occurs when tiny water droplets inside clouds become too heavy to remain floating in the air.

Many of the common misconceptions around clouds involve what they are composed of. Many young students may try to associate the white puffiness of clouds to things they are familiar with such as cotton balls or marshmallows. Young students don't have a good grasp on solids, liquids and gases either, so they struggle to understand that water exists in different forms. Emphasize that clouds are made of tiny water droplets.

Another common weather misconception of young children involves lightning and thunder. Young children have been told all sorts of explanations for this phenomenon such as angels rearranging furniture. Young students often don't understand that thunder is the sound that the lightning makes since they often don't happen right at the same time. Explain that lightning is a spark of electricity that can move from cloud to cloud, cloud to ground or just through the air. The thunder is the sound produced by the spark.

TIPS FOR TEACHERS

Meteorologists are the scientists who study and report weather. They rely on a variety of weather instruments such as barometers to measure air pressure, thermometers for temperature, anemometers to measure wind speed, and many more. They look for patterns over time to make predictions about weather, and they use tools to record data that can be analyzed to help with their predictions. Weather in the United States generally moves from west to east which can help with predictions.