GENERATIONGENIUS
ALWAYS QUESTION. ALWAYS WONDER.

TEACHER GUIDE

SEASONS AND DAY LENGTH
GRADES K-2

COMMON MISCONCEPTIONS

One common misconception many young students hold is that winter conditions are the same everywhere. Many children's books depict winter with snow and snowmen, when in reality the severity of winter depends where you live. A cold winter in New York, for example might include snow and below freezing temperature. By contrast, a cold winter in Florida might require a light sweater. Seasonal changes do occur in almost all locations, but they just aren't as harsh in some places compared to others.

Another misconception about seasons, is that the Earth is closer to the sun during summer than in winter. This is not the cause of seasons. In the summer months, there are many more hours of daylight which give the sunlight more time to heat up the Earth's surface. In contrast, days are shorter in winter, resulting in less time for sunlight to heat up the Earth. *The deeper mechanism that causes seasons (tilt of the earth and its orbit around the sun) are not discussed as this age.*

Another misconception is that seasons happen at the same time everywhere on Earth. In higher grade levels, students will learn that summer in the southern hemisphere happens at the opposite time of summer in the northern hemisphere. This concept is not taught at this age.

SEASONS

The rotation and revolution of the Earth are responsible for seasons. For younger children focusing on the amount of daylight is a good start since they have not had the opportunity to learn about Earth's place in the universe, yet. If a solid foundation of seasons' relationship with the amount of daylight can be established early, students will have an easier time understanding this difficult concept in later grades.

TIPS FOR TEACHERS

A good read aloud to emphasize the effect sunlight has on season is *Sunshine Makes the Seasons* by Franklyn Branley. As you share the abundance of books with students around seasons, be sure to point out that images in books depict seasons in some places, but that temperature and weather conditions can vary by location.