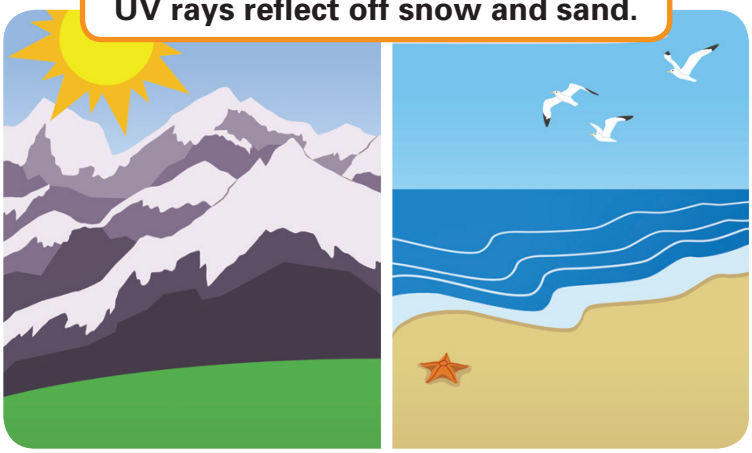
Student Activity Sheet Name: _____

The Power of the Sun

The sun is a star filled with gases that create energy. This energy makes the heat and light the sun gives off. It only takes eight minutes for the sun's light to get to Earth. That's pretty fast, considering the sun is about 93 million miles away!

Along with the light and heat, Earth uses the sun to grow plants and keep us healthy. The sun also sends out invisible ultraviolet (UV) rays. Even though we can't see or feel them, UV rays can be harmful. UV rays can burn and hurt our skin and eyes, so we need to protect ourselves from them.

UV rays reflect off snow and sand.



What Is the UV Index?

The UV Index is like a warning code. It tells us the amount of UV rays coming from the sun. It lets us know how harmful the rays can be to our skin and eyes when we're outside. The UV Index ranges from 0 (low) to 11 or more (extremely high). We need to be extra careful when the index is high.

How Do UV Rays Work?

There are things we can do to help protect ourselves from the sun. For example, apply sunscreen with a Sun Protection Factor (SPF) of 30 or higher at least 30 minutes before you go outside. SPF 30 blocks 97% of UV rays. We should also learn about the sun's strength.

- The sun's rays are strongest and most harmful when the sun is directly overhead between 10 a.m. and 4 p.m.
- The sun's rays are strongest in the summer, but its rays can also be harmful in the winter.
- UV rays go through clouds, so we need to protect ourselves on cloudy days, too.
- UV rays can reflect off snow, water, and sand at the beach, as well as pavement and sidewalks. This means the rays can reach our skin.
- The sun is strongest at or near the equator. UV rays travel a shorter distance to get to the area.
- UV rays are stronger at higher altitudes, such as in the mountains.