

The Sun Fuels Our Weather

Prior Knowledge

How many days are in a year?

How many hours are in a day?

How many degrees is the Earth's axis tilted?

What does the tilt of the Earth cause?

The Sun: Essential for Life

What role does the Sun play in photosynthesis?

According to the video, what are the two main reasons why the Sun is so important?

- 1.
- 2.

Sun's Radiation Transforms to Convection and Conduction

Define Radiation:

Define Conduction:

Define Convection:

According to the video, how does the Sun act like an oven?

The Sun and Earth's Atmosphere Keep Us Warm

According to the video, how does the atmosphere act like a blanket for Earth?

What is the effect called that traps heat in the atmosphere?

Thermal Energy Transferred through Wind and Water

What happens to air particles when warm air rises and cold air sinks?

Why is ocean water constantly moving?

What can happen at the boundary of water and land?

The Sun's Energy Contributes to Weather

Define weather:

What factors can describe weather?

- 1.
- 2.
- 3.
- 4.

What would happen if the Earth did not receive the radiation from the Sun?

What do we call the movement when warm air or water rises, then cools and sinks?

What does humidity measure?

How does the Sun cause humidity?

What causes precipitation?

How does the sun cause precipitation?

Lesson Review

What drives life on Earth and starts food chains by fueling photosynthesis?

Where does the energy that drives convection currents come from?

Why does the Sun heat the surface of the Earth unevenly?

Explain how temperature, humidity, and wind are driven by the Sun's energy:

- Temperature:
- Humidity:
- Wind:

Why is the Greenhouse effect necessary?