Objective: Identify where the energy for the Earth system comes from, and where it goes on Earth.

Important vocabulary words for today are **radiation**, **reflection** and **absorption**. Brainstorm a list of any words or phrases you can think of related to those terms.

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Exploring the Global Energy Budget

*Big Question: How does Earth “spend” its energy allowance from the sun?*

Listen to the presentations from the other expert groups and note the key information about each lab in the boxes below.

**Summary of Albedo Lab:**
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**Summary of Clouds Lab:**
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**Summary of Land vs. Water Lab:**
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Energy budget - ______________________________________
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Key points from the video: ______________________________________
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Summarizer:
Describe the Global Energy Budget and how it works.

What would happen if the surface of Earth changed to be more or less reflective?

What would happen if there were more or less clouds all the time?

How are the oceans and other water on Earth important to the Global Energy Budget?
Directions: Label each arrow with the number that shows the approximate percentage of energy absorbed or radiated along with a brief description.

1. 20% of sunlight is reflected by clouds and 3% is absorbed.
2. 16% is absorbed by gases and dust in the air and 6% is reflected.
3. 4% is reflected by the surface back into the atmosphere.
4. 51% of energy is absorbed by land and water (Earth’s surface).
5. Absorbed heat is radiated back into the atmosphere. A large percentage of that heat is latent heat in water vapor.