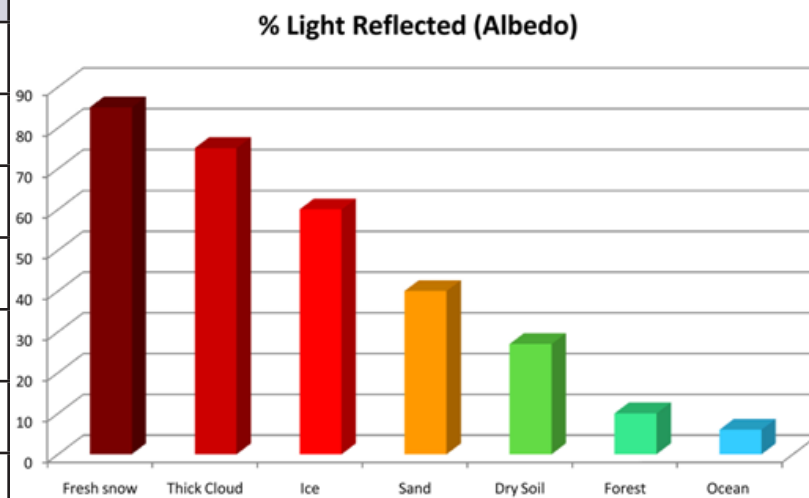


Evaluate

(May be completed for homework)

NASA satellites measure the amount of light reflected by different materials on the Earth surface. The table and graph below show the percentage of light reflected from some Earth materials.

Earth Materials	% of Light Reflected (albedo)
Fresh snow	85
Thick cloud (Thunderstorm)	75
Ice	60
Sand	40
Dry soil	27
Forest	10
Ocean	6



Credit: NASA/GSFC

Base your answers to Questions 1 – 3 on the graph and your knowledge of energy in the Earth system.

1. Which material reflects the least sunlight?

The ocean.

2. Which Earth materials have the highest albedo? How do you know?

Fresh snow, thick clouds and ice. These reflect the most light, and the higher a substance's albedo, the more light it can reflect. Snow and ice are very white. Light-colored substances reflect light most effectively.



3. Which Earth material is the best absorber of heat? How do you know?

The ocean. It is reflecting the least amount energy back into space, and therefore must be absorbing it effectively from the Sun.

4. Draw and label a picture that shows how the Greenhouse Effect warms the Earth. Be sure to include the following:

- a. Higher wave energy from the Sun
- b. Lower wave energy re-radiated by Earth (heat)
- c. Greenhouse gases
- d. The atmosphere