

Name:

FIGURE 1

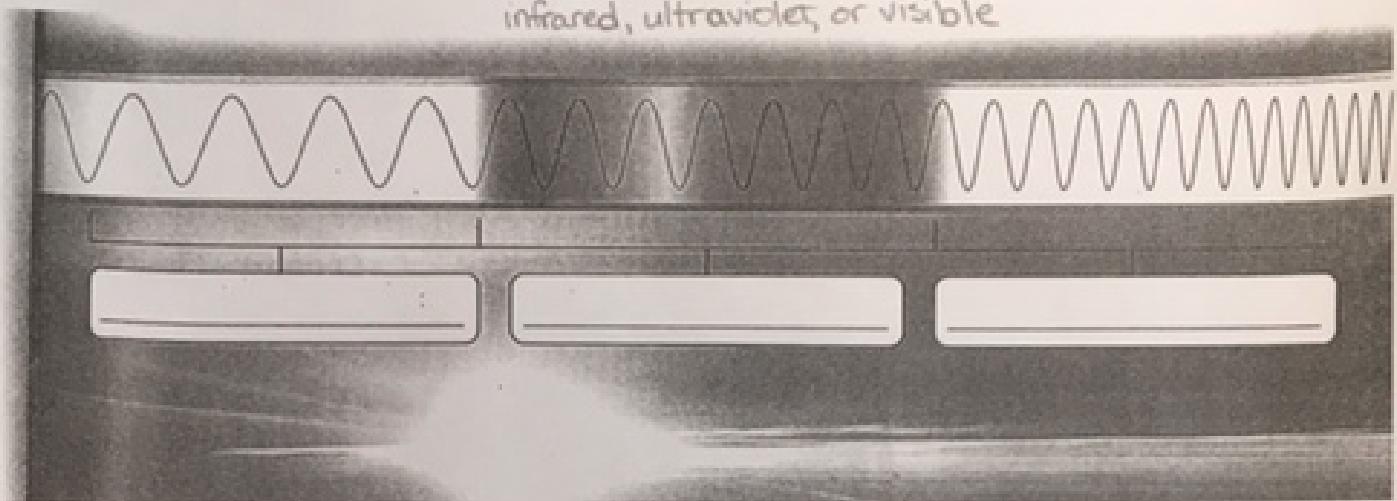
Date: _____ Block: _____

Radiation From the Sun

Energy travels to Earth as electromagnetic waves.

- Identify Label the types of electromagnetic radiation in the diagram.

infrared, ultraviolet, or visible



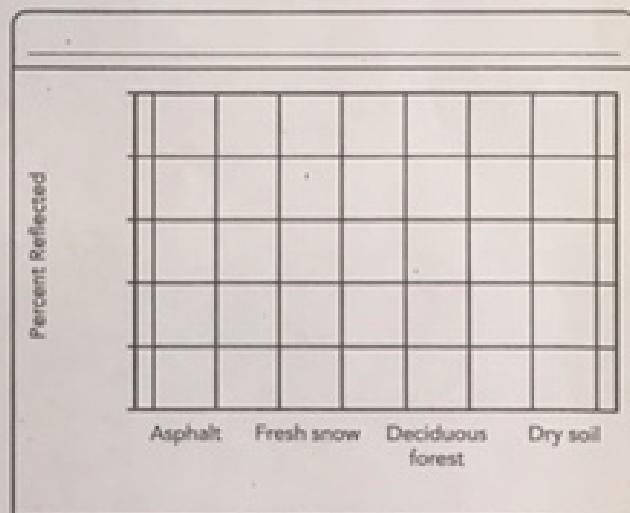
apply it!

The materials at Earth's surface shown below reflect different amounts of energy.

- ① Graph Use the higher percentages below to draw a bar graph. Give it a title.

- ② Based on your graph, which material reflects the most sunlight? Which absorbs the most?

- ③ CHALLENGE Predict what might happen if a forested area was replaced with an asphalt parking lot.



Asphalt

5–10% reflected



Fresh snow

80–90% reflected



Deciduous forest

15–20% reflected



Dry soil

20–25% reflected

See the "Energy in the Atmosphere" presentation for clearer, color images.

Greenhouse Gases

Greenhouse Effect

The greenhouse effect is a natural heat-trapping process.

Sequence Number each step in the diagram to show how the greenhouse effect takes place. Discuss the diagram with a partner.

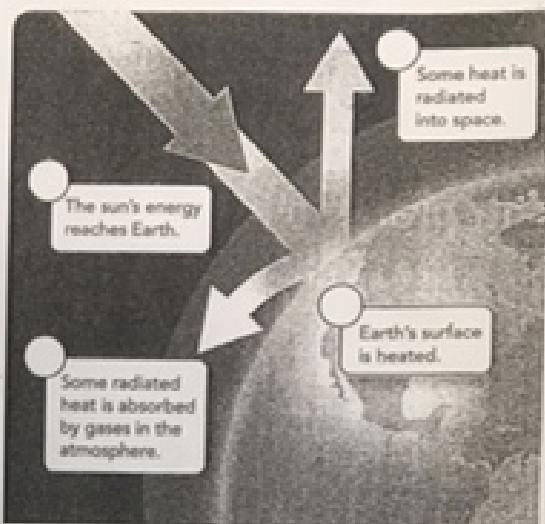


FIGURE 3

Energy at Earth's Surface

Identify What's happening to energy in the lower atmosphere and at Earth's surface? Find out by using the words in the word bank below to complete each sentence.

Word Bank

reflected absorbed radiated
Words may be used more than once.

Draw Conclusions Using the diagram below, draw a conclusion about energy at Earth's surface.

Energy at Earth's Surface

_____ % is _____

About 25 percent of incoming sunlight
is _____ by clouds, dust, and
gases in the atmosphere.

About 50 percent
is _____
by Earth's surface.
This heats the land
and the water.

About 20 percent is _____
by gases and particles in the atmosphere.

Some absorbed energy
is _____ back
into the atmosphere.

About 5 percent is _____
by the surface back into the atmosphere.