30—Earth Materials and Their Uses

Formation of Rocks

element

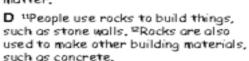
mineral

rock

A 'The earth is made up of a variety of materials, such as rocks, minerals, and metals, ²People can use these resources in many ways—but first, they have to get them.

B 3We get many earth materials by digging into the earth's crust, *The earth's crust is a thin layer of solid rock that makes up the earth's outer layer, Tt is about 20 miles (32 km) thick,

C *Rock is made of one or more minerals stuck together. "Minerals are solid, nonliving substances found in the earth's crust, "A mineral is made of elements and compounds, For example, limestone is a mineral made up of calcium, carbon, and oxygen, 10 An element is a basic substance made of only one kind of matter.



E 13Minerals have many uses, 14For example, table salt is used to make food taste better, 15 Minerals such as diamonds and gemstones are used to make jewelry, 16Because they are so hard, diamonds are also used in drills or cutting machines. 17 Coins used to be made from *pure* materials such as gold and silver, "Each of these metals is

made of a single element, 19 Can you give two examples of metals used to build things like bridges and automobiles?

F 20People also use the earth as a source of energy. 21For example, the inside of the earth is so hot that its heat can be used to boil water, ²²Boiling water makes steam. ²³Steam is a force that can be used to produce electricity. 24 The energy in hot water can also be used to heat homes. 25 Some of the earth's minerals are also used as a source of energy. *For example, radioactive elements like uranium are used to produce nuclear energy. ²⁷Fossil fuels like fuel oil and coal also come from the earth.

G 28The water that covers most of the surface of the earth is another natural resource. 29We use the oceans in transporting goods and people by boat, ⁵⁰If necessary, we can remove the salt to make drinking water. *We can even use the motion of ocean waves to produce electricity.

H 32The circle graph below shows the major elements that make up the earth's crust. 55 About how much of the earth's crust is made up of oxygen?

