



ANSWER KEY

Exercise: 1

Instructions: There are many places in Idaho where one can observe caves. Caves come in a variety of shapes and sizes depending on where they are found. They can also form in different ways. This exercise will give you the opportunity to learn about caves and how they are formed. Use your knowledge and the Digital Atlas to answer the following questions.

1. How is a corrosion cave formed? What is required for these caves to form? What were they used for?

Corrosion caves are formed from water eroding away the soil or rock. They most often occur at the edge of a water source such as a river or lake. Humans often used such caves for shelters.

2. How is a solution cave formed? How is a solution cave different from a corrosion cave?

Solution caves form from acidic ground water dissolving large quantities of solid rock. These caves are often much larger when compared to corrosion caves. They also have stalactites and stalagmites.

3. How do lava caves form? How large can such caves get?

Lava caves form from lava flowing. The sides, top, and bottom harden before the center. Lava continues to flow through the center, when there is no more lava, it leaves a hollow tunnel that forms a cave. These are usually 10 to 20 feet in diameter.

4. How are stalactites and stalagmites formed? What are they made out of? How is this affected by the type of cave they are found in?

In solution caves, stalagmites and stalactites are formed from the dripping of water that leaves calcium carbonate deposits. Stalactites hang from the roofs of the cave and stalagmites form from the floor. In lava caves, stalactites and stalagmites form from the dripping of lava that cools into solid rock.

5. How did the Shoshone Ice Caves form? How thick is the layer of ice at the end of the cave? How can ice be there all year when temperatures in the summer get over 100 degrees?

The Ice caves formed from lava flowing over the land. These caves formed from lava tubes. No one knows how thick the ice at the end of the cave is despite attempts to determine it. The interior of the caves is well insulated from the surface and temperature stays between 18 and 33 degrees all year.

6. In looking at the picture of the Minnetonka Caves, what kind of a cave do you think this is? What kinds of fossils are found in this cave? What do these fossils suggest about the ancient history of these caves? What do they suggest about the ancient history of our region?

The Minnetonka cave is a solution cave. Fossils of tropical plant and marine life have been found which suggests that this area had a completely different climate at another time. Parts of this cave's history include a period during which this part of Idaho was underwater!