Stalagmite, Stalactite

Cross-Curricular Focus: Earth Science

Name: _____

Limestone caves often have some unusual rock formations. Rain soaks through the soil and rocks on land. It becomes groundwater, which is water stored below Earth's surface. Sometimes the groundwater is located above a limestone cave. Drops of water find their way through tiny openings and cracks in the roof of the cave. Microscopic particles of limestone from the roof are worn away as the drops of water travel. The water carries the particles along with it. Eventually the water evaporates, leaving the limestone deposit behind. Over time, many drops follow the same path. They add to the limestone formation bit by bit. By the time thousands of years have passed, all the tiny deposits add up to a large **stalactite.** A stalactite is a pointed rock formation. It hangs down from the roof of the cave and points toward the ground.

If the drops of water fall to the ground before they evaporate, the limestone formation starts to build from the floor of the cave upward instead. Drop after drop adds to the formation over many years. When the deposits occur on the floor of the cave pointing up instead of from the roof of the cave pointing down, the limestone formation is called a **stalagmite.** The rarest of all the cave formations occurs when a stalactite and a stalagmite form separately over time, but then meet in the middle and fuse together. This kind of formation is known as a single column.

Carlsbad Caverns in the Guadalupe Mountains of New Mexico is a world famous collection of limestone caves. The vast 46,766 acre collection of caves is home to some of the most amazing stalactites and stalagmites on Earth.

About 1898 a cowboy named Jim White saw smoke rising from the ground. When he went to investigate, he found it was not smoke but a large formation of bats flying upward from the caves. He began to explore the caves and saw the amazing rock formations. Later, the caves were photographed, and visitors began to come from all over the world to see their natural beauty. Carlsbad Caverns became a national park in 1930. In 1995, it was named a World Heritage Site by the United Nations Scientific and Cultural Organization.

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) In your own words, explain how a stalactite forms:

_____

_____

_____

_____

2) Explain how a stalagmite differs from a stalactite.

_____

_____

_____

3) What is the formation called when a stalagmite and stalactite join together?

_____

4) What mistake led to Jim White exploring the caves?

_____

_____

5) Carlsbad Caverns is located in what state?

_____

_____

Stalagmite, Stalactite

Cross-Curricular Focus: Earth Science

Limestone caves often have some unusual rock formations. Rain soaks through the soil and rocks on land. It becomes groundwater, which is water stored below Earth's surface. Sometimes the groundwater is located above a limestone cave. Drops of water find their way through tiny openings and cracks in the roof of the cave. Microscopic particles of limestone from the roof are worn away as the drops of water travel. The water carries the particles along with it. Eventually the water evaporates, leaving the limestone deposit behind. Over time, many drops follow the same path. They add to the limestone formation bit by bit. By the time thousands of years have passed, all the tiny deposits add up to a large **stalactite.** A stalactite is a pointed rock formation. It hangs down from the roof of the cave and points toward the ground.

If the drops of water fall to the ground before they evaporate, the limestone formation starts to build from the floor of the cave upward instead. Drop after drop adds to the formation over many years. When the deposits occur on the floor of the cave pointing up instead of from the roof of the cave pointing down, the limestone formation is called a **stalagmite.** The rarest of all the cave formations occurs when a stalactite and a stalagmite form separately over time, but then meet in the middle and fuse together. This kind of formation is known as a single column.

Carlsbad Caverns in the Guadalupe Mountains of New Mexico is a world famous collection of limestone caves. The vast 46,766 acre collection of caves is home to some of the most amazing stalactites and stalagmites on Earth.

About 1898 a cowboy named Jim White saw smoke rising from the ground. When he went to investigate, he found it was not smoke but a large formation of bats flying upward from the caves. He began to explore the caves and saw the amazing rock formations. Later, the caves were photographed, and visitors began to come from all over the world to see their natural beauty. Carlsbad Caverns became a national park in 1930. In 1995, it was named a World Heritage Site by the United Nations Scientific and Cultural Organization.

Name: Key

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

Actual wording of answers may vary.

1) In your own words, explain how a stalactite forms:

Groundwater from above a limestone caves travels through cracks in the roof of the cave. The water evaporates and leaves a deposit of limestone. The limestone builds up over time.

2) Explain how a stalagmite differs from a stalactite.

A stalagmite is made of limestone particles that have built up from the floor of the cave. A stalactite builds up from the roof toward the floor.

3) What is the formation called when a stalagmite and stalactite join together?

a single column

4) What mistake led to Jim White exploring the caves?

He saw bats leaving the cave and thought it was smoke.

5) Carlsbad Caverns is located in what state?

New Mexico