

HORIZON'S HOMESCHOOL

PART 2: Central Texas Geology (Caves)

LESSON

What is geology?

Geology is the study of Earth's physical features and history. A person whose job it is to learn about these features and understand how different processes can affect them is called a **geologist**. Many geologists are especially interested in rocks and caves.



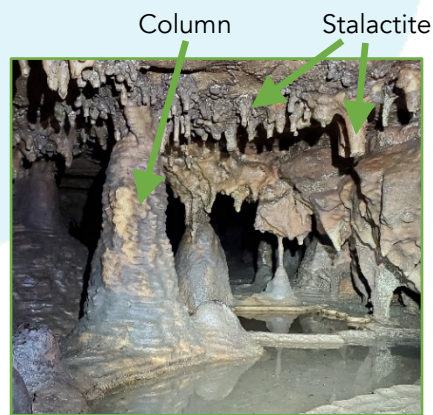
What is a cave?

A cave is a natural opening in the ground that is large enough for a person to get inside. In Central Texas, most caves are formed by a geologic process that happens (very slowly!) when water dissolves limestone. The landscape formed under the dissolved limestone is called **karst**.

What's inside a cave?

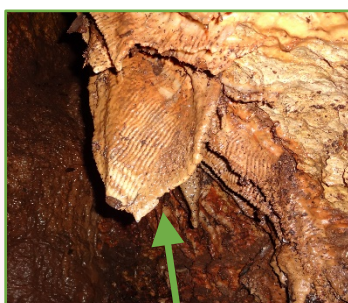
Mineral deposits of calcium carbonate are called **speleothems** (formations) and are often found inside limestone caves. Common types of speleothems include:

- Stalagmite – rise from the floor of cave
- Stalactite – hang down from the ceiling
- Column – when a stalactite and stalagmite grow together
- Cave “bacon” – thin, wavy sheets hanging from ceiling
- Cave “popcorn” – knobby clusters

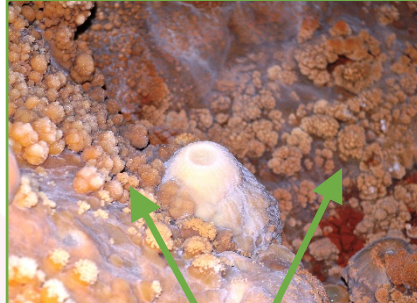


Stalagmite

Stalactite



“Bacon”



“Popcorn”

Tip to Remember: Stalagmites – you might trip on them. Stalactites – hang tight to the ceiling!

Why are caves important?

Central Texas is located over the Edwards Aquifer, which provides water for the whole area to drink. The geology over the aquifer provides the opportunity for many caves to form. The aquifer is highly

permeable, which means that water can pass through it easily; this makes it vulnerable to contamination. If a dangerous liquid is spilled on top of a cave, the pollution can leak down into the cave and poison the water. Identifying and protecting caves helps keep our drinking water safe.

In addition to providing proper conditions for unique cave formations, caves also provide habitat for cave-dwelling species. Some caves provide a place for *endangered* (near-extinction) species to live. In Central Texas, there are several types of bugs that are called **terrestrial karst invertebrates**. They are specially adapted to subterranean (underground) existence and feed on organic matter on the floors of caves. Without caves, terrestrial karst invertebrates cannot live.



Bee Creek Cave
Harvestman
(Endangered)



Tooth Cave
Ground Beetle
(Endangered)



Cave Cricket



Harvestman
(Daddy longlegs)

Caves offer a unique and irreplaceable environment that we must protect so that future generations can learn from and enjoy the hidden treasures below the Earth's surface.

Fun Fact: The act of exploring caves is called **spelunking** (spi-luhngk-ing)!

How is Horizon Environmental involved?

The geologists who work at Horizon go out to find and examine geologic features to see if they are caves that could potentially provide a place for endangered terrestrial karst invertebrates to live. Horizon works with land developers to try to protect caves and endangered terrestrial karst invertebrate habitat as much as possible so that we can all live together in peace.



How can *you* get involved?

Central Texas is home to two of the most popular natural attractions in Texas: Inner Space Cavern in Georgetown and Natural Bridge Cavern in San Antonio. You can visit either of these caves to take a tour and see beautiful geologic formations. While taking a tour, make sure to share your knowledge on how to tell the difference between a stalagmite and a stalactite!

How much did *you* learn? Take the quiz to see! Check out the "make your own cave" activity!

To learn more about what we do at Horizon, please visit [our Services page](#). Thanks for joining us!