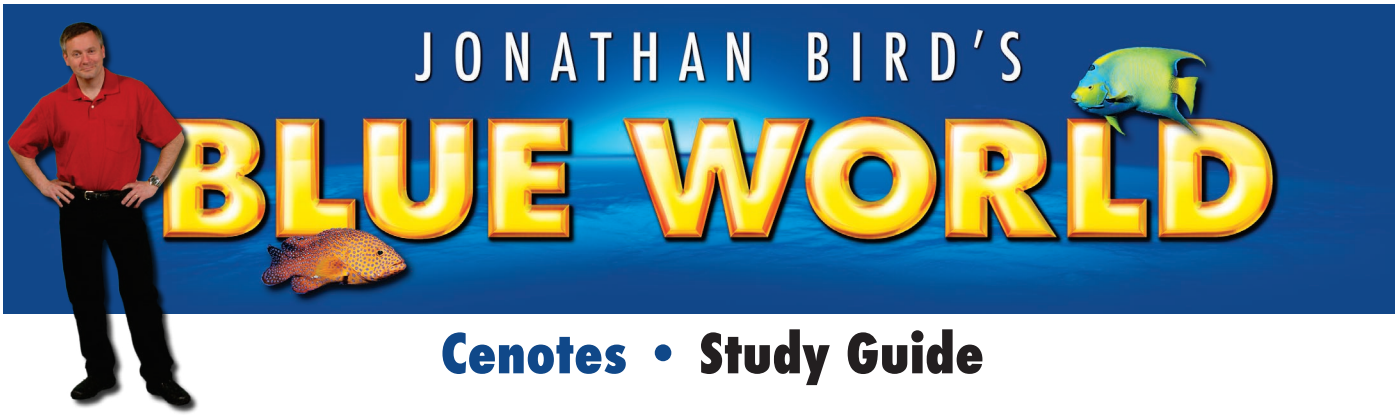


# Cenotes • Study Guide

In Mexico's Yucatan peninsula, underground rivers flow from the rainforest to the ocean through hidden tunnels. In many places, the roof of the tunnel has collapsed, providing access to the water flowing beneath, and the elaborate cave system filled with water. The ancient Mayans called them *Dzonot*, meaning *sacred well*. That word today has become *Cenote*. In this exciting episode, Jonathan venures to Mexico's Riviera Maya to learn about cenotes by exploring them with Marco Wagner, an expert cave diver.

## Objectives

1. Introduces viewers to the concept of aquifers and how water moves within the Earth.
2. Explains how caves, stalactites and stalagmites are formed.
3. Explores the geology of limestone caves and the water chemistry within them.

## Questions for before watching the program

1. What is a stalagmite and a stalactite? How are they formed?
2. What are some dangers in exploring underground rivers and caves?
3. Can water move like a river underground?
4. Would water in an underground river likely be very clear, or murky?

## Discussion for after watching the program

1. What formed the caves within the cenotes?
2. Which formation comes from the ceiling of the cave--a stalactite or a stalagmite?
3. If the cenotes are filled with water, how could stalactites and stalagmites have formed?
4. Why is the water in a cenote so clear?
5. Why does the water get murky and "swirly" at a certain depth? (Hint: called a *halocline*).
6. What are two reasons why divers have to have good buoyancy control in a cenote?
7. Why were cenotes so important to the Mayans? In what ways did they use cenotes in life and in their rituals?