



## The Crystal Cave • Study Guide

In this spectacular episode, Jonathan joins world-renown cave explorer Brian Kakuk to investigate the Crystal Cave of Abaco, Bahamas—considered the most highly-ornamented underwater cave in the world! The formations in this cave are simply stunning and rare--and a fascinating look into geology.

### Objectives

1. Introduces viewers to the processes through which cave formations form.
2. Demonstrates how temperature changes over time have changed sea levels and how this affects the water table.

### Questions for before watching the program

1. What is a stalagmite? What is a stalactite? How do they form?
2. What is limestone?
3. Why are caves often found in limestone?
4. What happens to the ground water table on an island when the sea level changes?
5. What happens to the sea levels during an ice age?

### Discussion for after watching the program

1. How does Sahara dust get into the caves in the Bahamas? What gives the dust its red color?
2. Why do we know that the cave was once dry?
3. What mechanism caused the caves to fill up with water?
4. How do we know that the bat skeleton has to be at least 15,000 years old?
5. What is a soda straw formation and how does it form?
6. How do the “flower” formations grow?
7. What is a helictite and how do geologists believe they form?
8. Internet research: What is calcite?