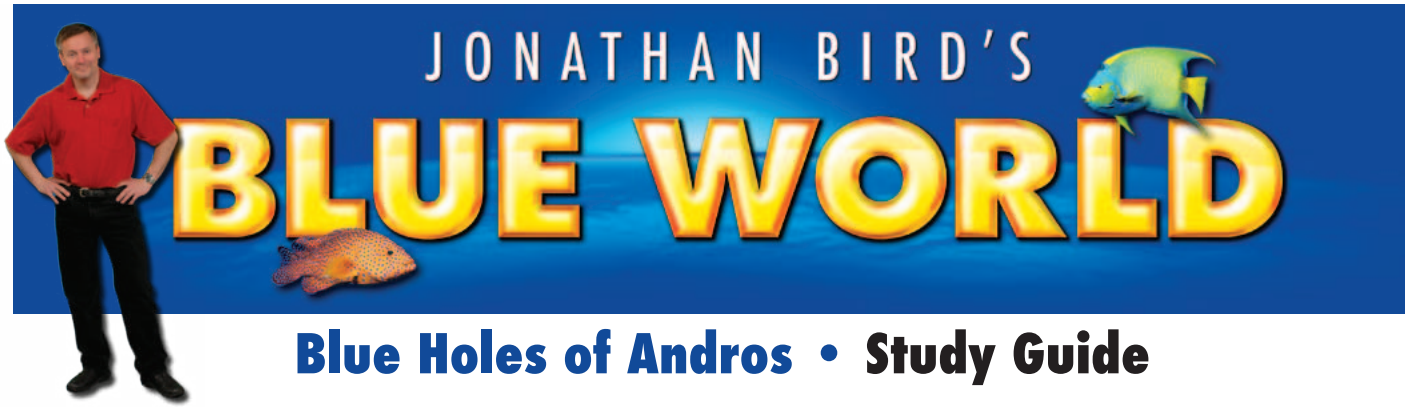

Blue Holes of Andros • Study Guide

Jonathan travels to Andros, an island in the Bahamas, to investigate underwater caves that start in blue holes. A blue hole looks like a pond, but leads into a vast underwater cave system. In the Bahamas, these caves often lead to the ocean. As Jonathan explores the ocean end of the caves, he learns how the two systems are connected.

Objectives

1. Introduces viewers to blue holes and how water transfers between an aquifer and the sea.

2. Introduces the physics of formation of blue holes and chemistry of acid rain involvement.

Questions for before watching the program

1. Can water erode rock? Can you think of some examples where this might happen?

2. What is limestone? Do you know how limestone is sometimes formed? (Hint-think about coral reefs).

3. What is acid rain? How is it formed?

4. What is an aquifer?

Discussion for after watching the program

1. What gives the blue hole its name?

2. Inland blue holes in the Bahamas are often openings to underwater cave systems that connect to what?

3. Is the inland blue hole filled with sea water or fresh water? Does it become sea water?

4. What caused the yellow color and bad visibility in the shallows of the blue hole?

5. When the tide goes out, the water around the reef outside the ocean blue hole gets murky. Why?

6. What causes the blue holes to form?

7. Internet research: how long does it take for a blue hole to form?