



USEFUL VOCABULARY

corundum
 mineral
 placer mining
 rock
 terrane
 thrust fault

CHAPTER 1 (1:33-6:24)

1. Describe how mountains were “built” in North Carolina.
North America and South America collided, exotic terranes collided, suspect terranes collided, and Africa collided. These collisions caused thrust faulting that formed the mountains of North Carolina.

2. What causes rocks to weather? How does soil develop from these processes?
Wind, water, ice, lichens and mosses cause weathering. Wind and water erode the rocks. Ice makes cracks form in the rocks, which allows lichen and mosses to grow in the crevices. Lichens and mosses break down rock and begin the process of soil formation. Ultimately, this activity creates larger cracks where trees and shrubs can grow.

3. Describe the following geological divisions of North Carolina: Ancestral North America, Suspect Terranes and Exotic Terranes.
 - *Ancestral North America was the edge of the continent of North America about 500 million years ago. Everything to the east of this area has been added since that time.*
 - *Suspect Terranes may or may not be part of North America; it is difficult to determine because they have been metamorphosed many times.*
 - *Exotic Terranes are part of volcanic islands that were added to the edge of the continent.*

CHAPTER 2 (6:24-12:38)

4. Describe the process of gold rising.
As the superheated water moves through the rock, it strips out minerals such as gold. When the water gets farther away from the volcano and begins to cool, the gold precipitates out.

5. Describe the significance of the discovery of gold in North Carolina in 1799.
It was the first documented discovery of gold in the United States.

6. What is in greenstone?
Mineralized rock containing gold, copper, silver and milky-white quartz.

7. Describe the size of the gold nuggets found at Reed Gold Mine.
The first was 17 pounds. The largest was 28 pounds. Most nuggets found at Reed Gold Mine weighed more than 1 pound.

8. Explain what the weight of gold has to do with panning for gold.
Because gold is so heavy, when everything else is sloshed out of the pan, gold is the only thing that remains.

CHAPTER 3 (12:38-16:35)

9. What are corundums?

Sapphires and rubies.

10. How would you search for sapphires and rubies in the western Piedmont of North Carolina?

You would dig in soft material, such as clay, until you reached the hard layer underneath. A corundum is very heavy. The gems are six-sided crystals. They produce a distinctive “ding” when your shovel hits the rock.

CHAPTER 4 (16:35-20:30)

11. Describe how Hiddenite got its name.

The town was named for Professor Earl Hidden, who discovered hiddenite here. This green mineral is found nowhere else in the world.

12. How do you search for emeralds?

Follow veins of quartz and mica, which can lead to a “nest” containing emeralds.

13. What element gives an emerald its color?

Chromium.

CHAPTER 5 (20:30-22:12)

14. How do gem cutters determine how to shape a diamond?

They use the shape that will best maximize the size and attributes of the stone.

CHAPTER 6 (20:15-24:05)

15. Why is North Carolina a rock hound’s paradise?

North Carolina has large quantities and types of gemstones.