

*From Chapter 2*

How did Cuvier and Lamarck disagree?

*From Chapter 3: The Original Penguin*

Who were Whewell (pronounced *hyoo ul*) and Lyell (pronounced *ly ul*), and how did they contribute to scholarship about extinction?

What is uniformitarianism?

Examine closely the cartoon on page 49: what do we discover there?

What does Darwin mean when he says he “geologised” on St. Jago? Why did his study there persuade him to believe Lyell’s views?

Why did Lyell object to the notion of transmutation? What exactly is “descent with modification”?

How did the extinction of the great auk contradict Darwin’s theory?

Describe the great auk and its habitats. What exactly caused the end of the great auk? When? How did human beings contribute to its extinction?

What is the Allee effect?

Who were John Wolley and Alfred Newton, and how did their work contribute to the Act for the Preservation of Seabirds? What gift did Newton send Darwin?

*From Chapter 4: The Luck of the Ammonites*

Why is the town of Gubbio important? What are ammonites? When did ammonite life begin and end?

What do we know about Luis and Walter Alvarez (pronounced *al var eez*)? What and when specifically did they contribute to our understanding of the fifth extinction? How did their work undermine Darwin’s insistence on a uniformitarian view of extinctions?

What is iridium, and why is it important?

Why didn't PEMEX continue exploration after discovering the 100-mile-wide crater beneath the Yucatan? How did this discovery and analysis of the cores influence scientists to reconsider the Alvarez propositions?

What do ammonites and belemnites tell us about the fifth extinction?

How quickly did most life forms die after the bolide hit the Yucatan? Why? What survived? What is the Signor-Lipps effect? The Lilliput effect?

What does the graph on page 89 tell us?