Scientists Plan to Map DNA of All Life on Earth

Discussion > Advanced 8

Exercise 1 – Vocabulary

map	To discover and explain the way something is organized or arranged.
[verb]	*Ex: Researchers are now able to **map** the different functions of the brain.*

ambitious	Intended to satisfy high aspirations and therefore difficult to achieve (of a plan or piece of work).
[adjective]	*Ex: China has announced an **ambitious** five year plan to explore outer space.*

sequence	To determine the order of the genetic code within DNA.
[verb]	*Ex: With modern technology, it's now possible to **sequence** the DNA of plants and animals.*

genome	All of the DNA and genes in a living thing.
[noun]	*Ex: The human **genome** contains around 20,000 genes.*

microorganism	A tiny living thing that can only be seen through a microscope.
[noun]	*Ex: Several experiments have shown that some **microorganisms** can survive in space.*

evolution	The process by which living things change over many generations.
[noun]	*Ex: Charles Darwin developed the theory of **evolution**.*

Exercise 2 – Reading

Read the text aloud with your tutor and discuss the key points.

Scientists Plan to Map DNA of All Life on Earth

Scientists across the world have set an ambitious goal for themselves: to sequence the genome of every known life form on Earth within the next decade.

The Earth BioGenome Project, launched this week in London, is attempting to map the DNA of every known animal, plant, fungus and microorganism on the planet – roughly 1.5 million species.

Scientists say the project is just as important as the Human Genome Project, which took 13 years to map the human genetic code. That project was completed in 2003.

The new project will rely on scientists contributing data from around the world. So far, Britain's Wellcome Sanger Institute has offered the most help, saying it will map 66,000 species. The institute was also a large contributor to the Human Genome Project.

The massive project will cost an estimated $4.7 billion, which will come from charities and governments around the world.

Scientists say the project will create a huge resource for researchers that could offer insights into a range of topics, including a better understanding of evolution, the development of diseases, and the aging process.

Researchers also hope the information could help in efforts to save species that are at risk of extinction.

Supporters of the project say it will help to coordinate the efforts of researchers from around the world and will make sure that all life forms are understood, not just those that have been studied in the past.

Scientists say part of the appeal of the project is that they do not fully know what the results will lead to.

Exercise 3 – Discussion

Discuss the following questions with your tutor.

1. What are your thoughts on the Earth BioGenome Project?
2. Have you ever taken a DNA test? If so, please share your experience. If not, would you like to?
3. Why do you think humans have been so successful as a species?
4. Do you think it's important that the average person has an understanding of how evolution works?
5. Why do you think some people are skeptical of evolution?
6. What would you say is the most fascinating scientific fact you know?
7. When you were in school, did you prefer studying biology, chemistry, or physics? Why?
8. Are there any scientific concepts that you find particularly difficult to understand?