

# Investigating Evolution in Unique Environments

**FIGURE 5:** These organisms were found in Movile Cave.



Movile Cave in Romania is closed to the public. In fact, fewer than 100 people have ever entered the cave. Those who have been inside returned with reports and images of translucent organisms, many without eyes, that have extra-long antenna and can breathe the toxic atmosphere. What do you think is happening in this cave, and what explains the unique appearance of these organisms?

## 1. ASK A QUESTION

With your team, make a list of questions you have about the organisms and the environment in Movile Cave. Identify the factors you will research to answer these questions.

## 2. CONDUCT RESEARCH

Investigate Movile Cave in Romania. What makes this cave unique, and what has contributed to the evolution of unique organisms within the cave?

## 3. DEVELOP A MODEL

Create a model that explains a likely sequence of events that led to the current organisms inhabiting Movile Cave.

## 4. CONSTRUCT AN EXPLANATION

Use your research and model to construct an explanation for how the organisms in Movile Cave changed and evolved over time. What traits were selected for and how are they advantageous in the environment?

## 5. COMMUNICATE

Present your research and your model as a multimedia presentation that explains how evolution and natural selection led to unique organisms in Movile Cave.

### CHECK YOUR WORK

#### A complete presentation should include the following information:

- a set of questions about what caused the evolution of unique traits in organisms in Movile Cave
- an explanation supported by evidence that details how the organisms changed and evolved over time and the selective pressures that caused the changes
- a model to accompany your explanation that explains a likely sequence of events that led to the appearance and behavior of the current organisms inhabiting Movile Cave