



Characteristics of Life

The Martian and the Car
Student Page

Enduring Understandings

Living things are made up of basic units called cells, are based on a universal genetic code, obtain and use materials and energy, grow and develop, reproduce, respond to their environment, maintain stable internal environment, and change over time.

Vocabulary

Unicellular, multicellular, metabolism, DNA, genetic code, asexual reproduction, sexual reproduction, homeostasis, stimulus, response, evolve

Essential Questions:

How is homeostasis maintained in an ecosystem?

Topical Questions:

How can I tell if something is living?

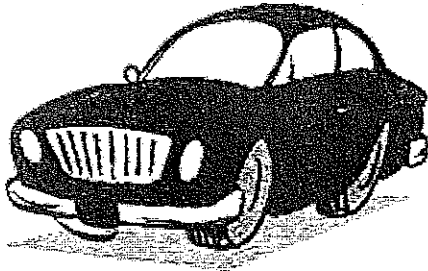
Objectives

List the characteristics of life and determine if something is living or not based on observations.

Name _____ Date _____ Class Period _____

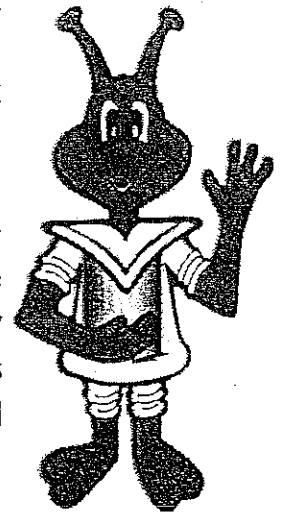
The Martian and the Car

Marty Martian was sent to Earth by the Martian government to find life. While on Earth, Marty captured a car and brought it back to Mars. He thought he'd found a good example of life on Earth. The Martian government does not believe that the car Marty brought back is alive. Marty must stand trial for failing to perform his Martian duties.



At the trial, Marty spoke in his defense. "I first saw these life forms rolling along roads in great numbers. They were giving off thick clouds of poisonous waste as they moved.

They seemed to exhibit herding behavior, as many of the cars moved in the same direction. They appeared to have a great deal of energy, some of them moved faster than 60 kilometers per hour. When one of these life forms stopped or slow down, the others behind it responded. They slowed down and gave off a reddish light from the back, and sometimes they would make honking noises. I observed that they would stop to feed on a liquid substance."



Take the part of Marty's defense attorney and make a good case for the car's being alive. Then be the prosecutor and show that the car is a nonliving thing. List as many reasons as you can