

Life Science Jeopardy!

Cells and Cell Theory	Genetics	Ecology	Evolution	Photosynthesis and Respiration
<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>
<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>
<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>
<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>

10-Which of the following is something that all living organisms have in common?

- a) They all contain at least one cell.
- b) They all need a source of oxygen.
- c) They all use other organisms for food.
- d) They all find mates to reproduce.

Answer: A



20-In an animal, a muscle cell requires more energy than other cells. Because of this, you would expect to find more of which type of organelles in muscle cells than in other cells?

- a) vacuoles
- b) chloroplasts
- c) cell walls
- d) mitochondria

Answer: D



30- It is very important of all living organisms to regulate their bodies. The cell membrane allows some substances to enter the cell while holding others inside. Which of the following is the condition in a cell when equal amounts of substance enter and leave the cell?

- a. Active transport
- b. Diffusion
- c. Homeostasis
- d. Osmosis

Answer: C



40-

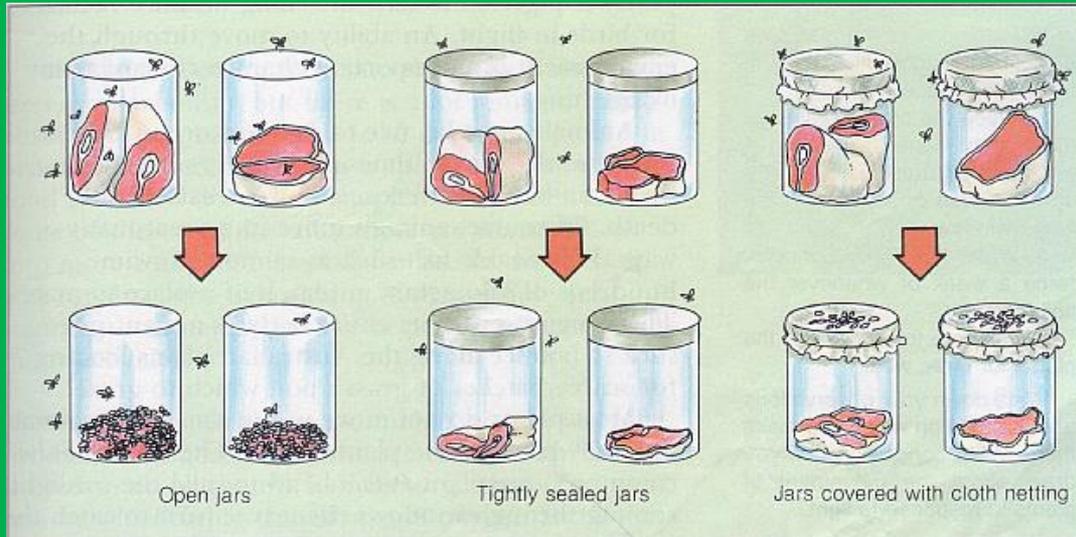
List 3 differences
between plant and
animal cells.

Answer: Plants have cell walls, chloroplasts, large vacuole, and are square .



50-

In 1698, Francesco Redi performed an experiment where he placed raw meat into three jars: one was covered, one was left open and one covered by cloth.



What part of the cell theory was demonstrated by his experiment?

Answer: Cells come from pre-existing cells.



10-What is the phenotype of a pumpkin?

- a) PP
- b) Pp
- c) orange color
- d) skinny

Answer: C



20-Candi learned that the ability to roll your tongue (R) is controlled by a dominant gene. Candi cannot roll her tongue. Explain why Candi can never learn to roll her tongue.

Answer: She is (rr) hetero recessive



30-Jermaine crosses a heterozygous seed (Dd) with a homozygous recessive (dd) for wrinkled seed. What percent of this cross will show the phenotype for wrinkled seeds?

- a) 100%
- b) 50%
- c) 25%
- d) 0%

Answer: B



40- Jay-Z and Beyonce are both heterozygous for brown eyes, which is a dominant trait. What is the likelihood that they will have a blue-eyed baby?

Answer: 25% blue



50-A group of scientists were studying the mating habits and offspring of a population of long haired dogs. They noticed a small population of short haired puppies in the offspring of some of the long haired dogs. What is the best conclusion the scientists can make to explain the occasional appearance of short haired puppies?

Answer: Long hair is dominant and short hair is recessive.



10-While growing on a lawn, some weeds, such as dandelions, struggle to get the nutrients and water that other plants, such as grass, also need to survive. This is an example of which of the following?

- a) predation
- b) commensalism
- c) parasitism
- d) competition

Answer: D



20-

Which of the following is an example of parasitism?

- a) bees and flowers
- b) a tick on a dog
- c) barnacles attached to a whale
- d) a wolf and a rabbit

Answer: B



30-Soil organisms, such as fungi, worms and bacteria are parts of a forest ecosystem. What is the role of these organisms in a food web?

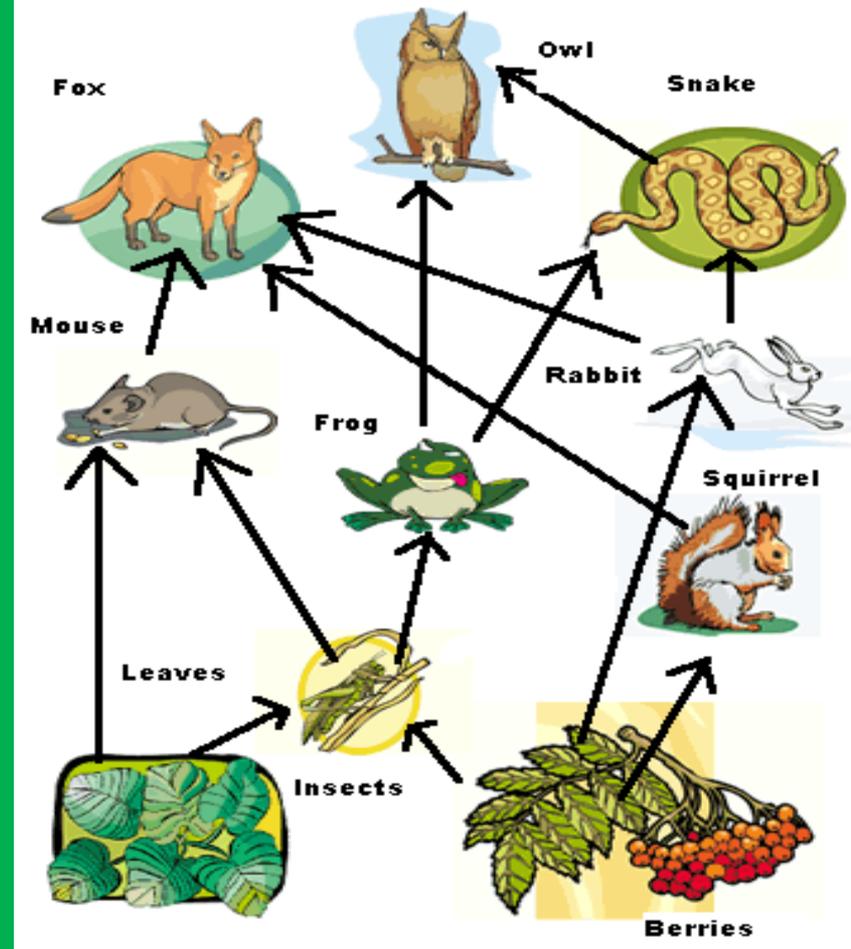
- a) To break down the remains of other living things.
- b) To obtain dissolved oxygen from moisture.
- c) To store chlorophyll for photosynthesis.
- d) To provide oxygen for the animals.

Answer: A



40- What would be the most likely effect if the insects in the diagram died due to pesticides?

- a. The squirrels would die.
- b. The frogs would die.
- c. The mouse population would increase.
- d. The plant population would decrease.



Answer: B



50- In much of southern Florida, Melaleuca trees have been planted in cities and new communities because they are very fast growing. However, this tree produces little food for animals and competes with plants that normally grow in an area. What are the consequences for animals and plants in habitats where these trees have been planted?

Answer: A decrease to both animal and plant populations



10- Which of the following causes gradual changes in a population to produce a new species and is often referred to as "survival of the fittest?"

a) natural selection

b) symbiosis

c) isolation

d) adaptation

Answer: A



20-Scientists believe that the modern horse developed from a short, horse-like mammal about the size of a dog. Over millions of years, the horse increased in size and developed much longer legs. Horses with longer legs had a better chance of surviving than the shorter-legged members of the herd. How did longer legs help horses survive?

- a) They allowed the horses to reach nuts in trees.
- b) They allowed the horses to outrun predators.
- c) They allowed the horses to carry more body weight.
- d) They allowed the horses to capture prey.

Answer: B



30-When Charles Darwin first observed the finches on the Galapagos Islands, he noticed that the beaks of the birds on each island were different. The drawings below show four different beaks.

What is a possible explanation for the difference in the birds' beaks?

- a) Adaptation to different food sources
- b) Adaptation to different temperature ranges
- c) Ability to attract different mates
- d) Ability to protect from different predators



Answer: A



40-A farmer wanted to find out if the number of plants per field would impact the final number of plants that survived in a field. Fields A, B, and C were the same size with the same type of soil. They also received the same amount of light and water.

What is a possible explanation for the decrease in the final number of plants in Field C?

	Number of plants at the beginning of the season	Number of plants at the end of the season
Field A	500	450
Field B	750	600
Field C	1,000	300

- a) Only plants with specific traits survived.
- b) Plants with deeper roots received more water.
- c) Plants whose seeds were carried by wind survived.
- d) Too many plants in a small area competed for nutrients.



Answer: D

50- A forest ecosystem contains many small mammals such as chipmunks and mice that live in the brown leaves on the forest floor. Imagine that a population of white mice was introduced into the forest environment. Why would there be no white mice found in the forest one year later?

- a) The mice could not find water.
- b) The mice could not find shelter.
- c) The mice could not find and store food.
- d) The mice could not hide from predators.

Answer: D



10-Which of the following processes would be most likely to release carbon dioxide into the environment?

- a)building a wooden house
- b)growing trees in the yard
- c)burning wood in a campfire
- d)chipping up wood for mulch

Answer: C



20-Hanna is going on vacation. She forgets to ask her brother to water her plants while she is gone, and when she returns, she finds that her plants have died. Which best explains why water is so important to plants?

- a) Plants must have water for photosynthesis to occur.
- b) Plants need the oxygen in water in order to produce carbon dioxide.
- c) Plants use water to help them break down proteins for life processes.
- d) Plants break the hydrogen bonds in water to use as a source of energy.

Answer: A



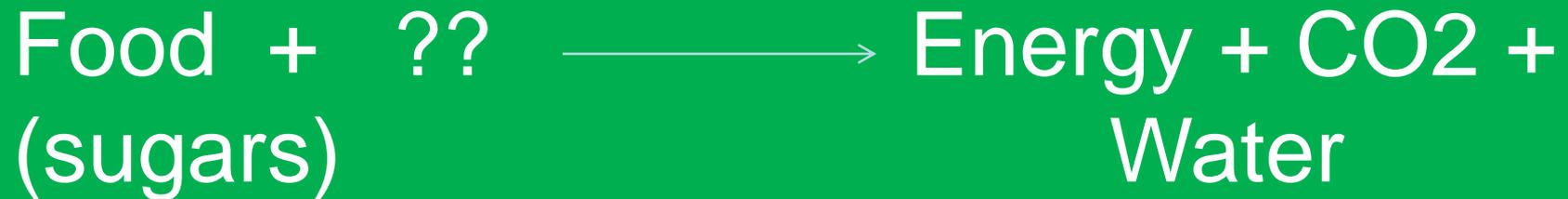
30- Fossil fuels such as natural gas and petroleum contain carbon. How did the carbon get into the fossil fuels?

- a) It migrated into them from the rocks in which the fossil fuels are found.
- b) It seeped out of coal buried near the fossil fuel deposits underground.
- c) It was in the air that was trapped underground when the fossil fuels formed.
- d) It was once part of the organisms from which the fossil fuels formed.

Answer: D



40-Which ingredient is missing from this cellular respiration formula?



Answer: Oxygen



50-Jimmy is running laps during his physical education class. As he is running, he starts to breathe harder as his body tries to get more oxygen. Which of the following best explains why Jimmy's oxygen requirement increases?

- a) His cells use oxygen as their primary source of energy.
- b) His cells need oxygen to help them break down sugars for energy.
- c) His cells need oxygen to increase the levels of sugars in the blood.
- d) His cells use oxygen to transport substances across their cell membranes.

Answer: B

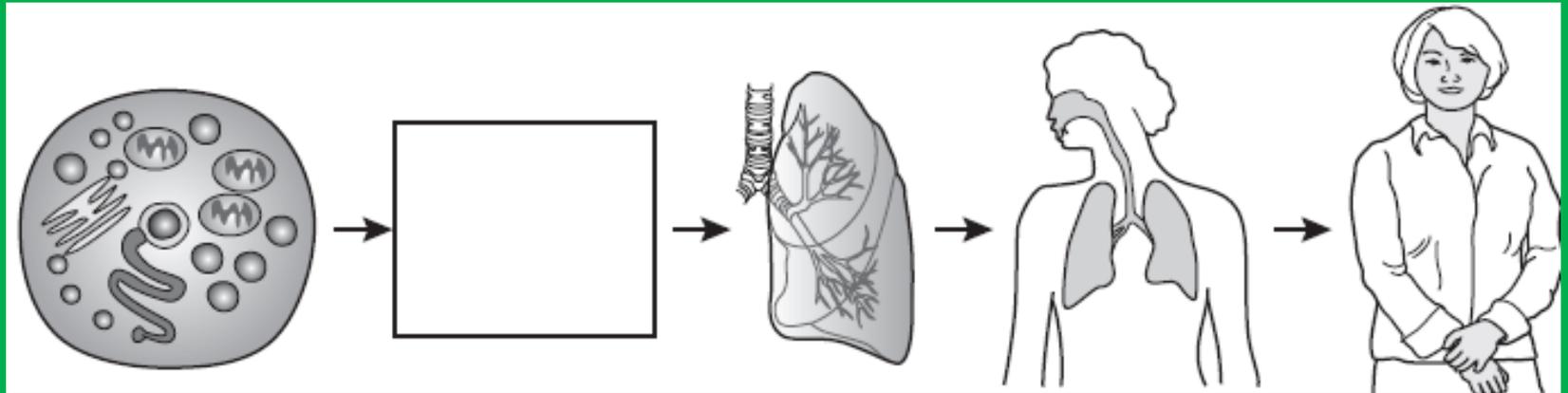


Final Jeopardy! Rules

- You can wager any amount you want up to your current score.
- I will accept only one answer for the question.
- Your team must decide on this answer together, take a vote if needed.

FINAL JEOPARDY!

Structures in the human body work together to perform specific functions. The diagram below shows the organization of structures found in the human body.



What level of organization of the human body should be placed in the box?