

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: \_\_\_\_\_

## Characteristics of Living Things Worksheet

*Directions: Identify which characteristic of living things is being described in each of the statements below. Some may be used more than once!*

- |   |  |
|---|--|
| A. All living things contain cells.         | F. All living things maintain an internal balance. |
| B. All living things contain DNA.           | G. All living things grow and develop.             |
| C. All living things obtain and use energy. | H. All living things evolve as a population.       |
| D. All living things reproduce.             |  |
| E. All living things respond to stimuli.    |  |

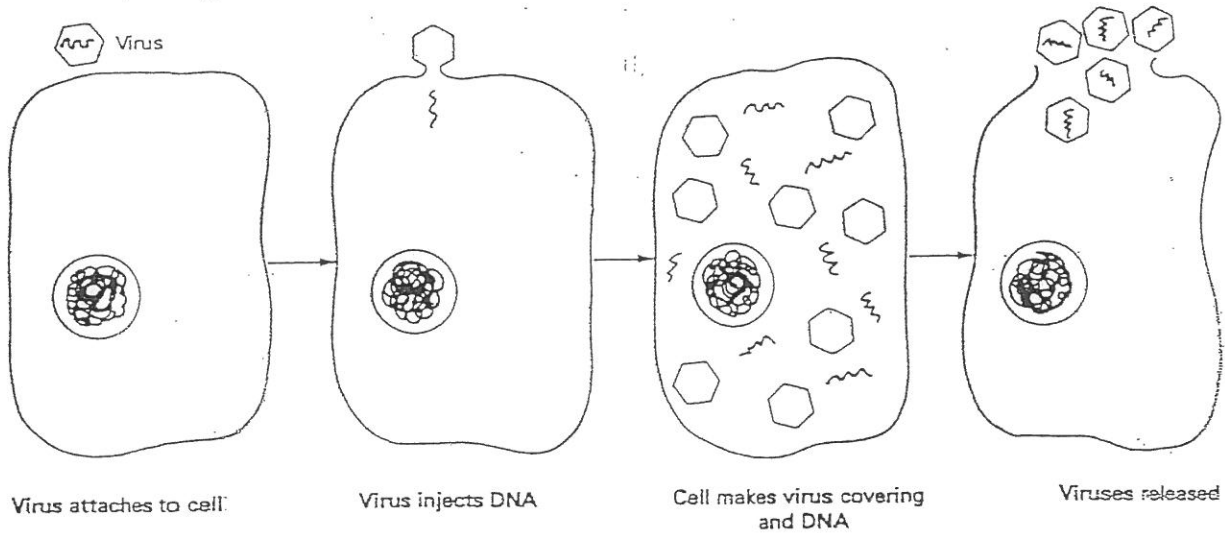
- \_\_\_ 1. An amoeba is a unicellular organism.
- \_\_\_ 2. When a human steps out into the cold air, the body begins to shiver in order to keep its temperature at 98.6 degrees Fahrenheit.
- \_\_\_ 3. Green plants produce their own food through the process of photosynthesis.
- \_\_\_ 4. An adult hydra is producing its offspring through budding.
- \_\_\_ 5. The roots of a plant grow towards a source of ground water.
- \_\_\_ 6. Over three years, Tim's height has increased from 5'4" to 5'11".
- \_\_\_ 7. A pill bug eats a carrot.
- \_\_\_ 8. A baby songbird hatches from its egg with both parent songbirds watching.
- \_\_\_ 9. A tulip opens up in the morning at sunrise and closes up in the evening at sunset.
- \_\_\_ 10. Identical twins have 99.999% of the same genes.
- \_\_\_ 11. A caterpillar hibernates in a cocoon, and emerges as a butterfly.
- \_\_\_ 12. It is thought that humans and chimpanzees once shared a common ancestor.
- \_\_\_ 13. A beaver is an organism composed of many different types of cells.
- \_\_\_ 14. A sea worm drops its tail and the tail becomes a new worm.
- \_\_\_ 15. As a sea worm is placed in fresh water, the pulse slows down in order for the worm to conserve energy.

## Are Viruses Alive?

An old question in the young science of microbiology is whether or not to classify viruses as living things. In 1892 the particles we now call viruses were discovered. Biologists have been debating whether they are living or nonliving ever since.

Read the paragraph below, study the illustrations, and then answer the following questions.

Viruses cannot reproduce unless they invade a living cell. Viruses consist of a protein coat surrounding a core of reproductive material, usually the hereditary chemical DNA. The virus injects its DNA into the living cell. The viral DNA then directs the cell to make material for the virus's covering. The viral DNA also directs the cell to make more viral DNA. These components are then assembled inside the cell, thus forming many new viruses. Eventually the cell bursts open and the viruses are released. The viruses then disperse. They remain unchanged until they come in contact with another cell, when the reproductive cycle begins anew. Viruses do not make or get food in any way.



- One requirement of living things is that they be made of cells. Do viruses meet that qualification? Explain your answer. \_\_\_\_\_
- Do viruses grow and develop? Explain. \_\_\_\_\_
- Do viruses reproduce? Explain. \_\_\_\_\_
- Do viruses have a life span? Explain. \_\_\_\_\_
- Are viruses living things? Explain your answer. \_\_\_\_\_