

Name \_\_\_\_\_

## **Electron Microscopes**

Read about electron microscopes. Then answer the following questions.

Try to imagine an object one millionth of a centimeter in size. It is much too small to be seen—or is it? You certainly cannot see an object this small with your unaided eyes. Yet, people have seen what objects this size look like. They use powerful electron microscopes. These microscopes have opened up a whole new world that once was invisible. They have revealed the structures of tiny cell parts, minute disease-causing viruses, and even large molecules.

An electron microscope can magnify the image of an object over half a million times. Instead of using light, like other microscopes, electron microscopes use beams of very small particles called electrons. The electrons pass through a very thin slice of the object. Magnetic lenses then focus the electrons onto a special screen. The image of the object appears on the screen. It can either be observed directly or photographed for later study.

1. How can people see objects that are one millionth of a centimeter in size?

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2. What are some things people have seen with electron microscopes?

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3. How many times can an electron microscope magnify an image? \_\_\_\_\_

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4. What do these microscopes use instead of light? \_\_\_\_\_

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5. What kind of lenses are used in an electron microscope? \_\_\_\_\_

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6. How can the image produced by an electron microscope be saved? \_\_\_\_\_

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