



TOUCH TOMORROW

A FESTIVAL OF SCIENCE, TECHNOLOGY, AND ROBOTS



ACTIVITY NAME: Little Liquid Lenses - ACTIVITIES

VOCABULARY - Can you match the words to the proper definitions?

- Substrate
 - Magnification
 - Droplet
 - Pipette
 - Diameter
 - Transparency
- A. the ability of a material to make something look bigger or smaller by bending light
 - B. a tool used to grab and move water drops
 - C. a single drop of a liquid (like water)
 - D. how easily you can see through a material (such as your clear substrate or droplet)
 - E. a layer that holds something
 - F. a straight line that passes through the center of a circle (your droplet) and touches its outline

REFLECTION QUESTIONS

What new things did you learn?

Where do you see examples of magnification in your everyday life?

Can you think of regular household objects or objects you use every day that work like the water droplet?

What kind of scientists or professionals do you think work with magnification?

What types of objects are too small (or too far away) to see with your eyes and needed a lens to magnify them?

Besides using water droplets what other types of materials do you think scientists and professionals use to make lenses?

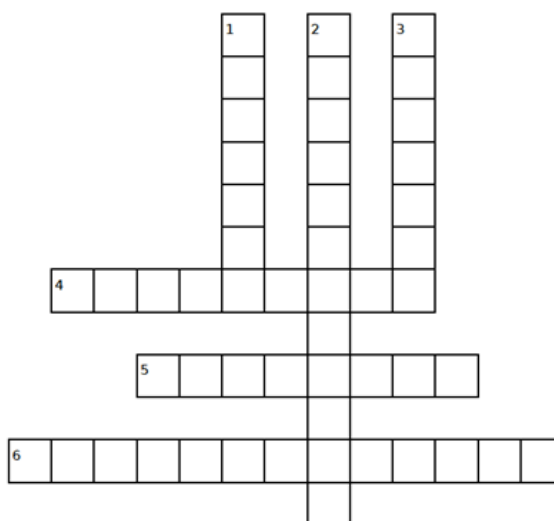
Besides magnification, what are some other important parts of describing a lens?





ACTIVITY NAME: Little Liquid Lenses - ACTIVITIES (pg 2)

Little Liquid Lenses - Vocabulary Crossword Puzzle



Down:

1. a single drop of a liquid (like water)
2. how easily you can see through a material (such as your clear substrate or droplet)
3. a tool to grab and move water drops

Across:

4. a layer that holds something
5. a straight line that passes through the center of a circle (your droplet) and touches its outline
6. the ability of a material to make something look bigger or smaller by bending light

Answers on next page





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ACTIVITY NAME: Little Liquid Lenses - ACTIVITIES - ANSWERS

VOCABULARY - ANSWERS

- Substrate - E
 - Magnification - A
 - Droplet - C
 - Pipette - B
 - Diameter - F
 - Transparency - D
-

REFLECTION QUESTIONS

What new things did you learn?

- *What a substrate is; What a droplet is; What a pipette is; How to use a pipette; What magnification is*

Where do you see examples of magnification in your everyday life?

- *Magnifying glass; Glasses; Peep hole in the front door; Telescopes; Microscopes*

Can you think of regular household objects or objects you use every day that work like the water droplet?

- *Eyeglasses; Snow globes*

What kind of scientists or professionals do you think work with magnification?

- *Physicists; Optical scientists and engineers; Astronomers; Cell biologists; Eye doctors (Ophthalmologists)*
- *Laser technicians; Photographers*

What types of objects are too small (or too far away) to see with your eyes and needed a lens to magnify them?

- *Insects; Planets and stars; Dust; Grains of sand; Hair*

Besides using water droplets what other types of materials do you think scientists and professionals use to make lenses?

Besides magnification, what are some other important parts of describing a lens?

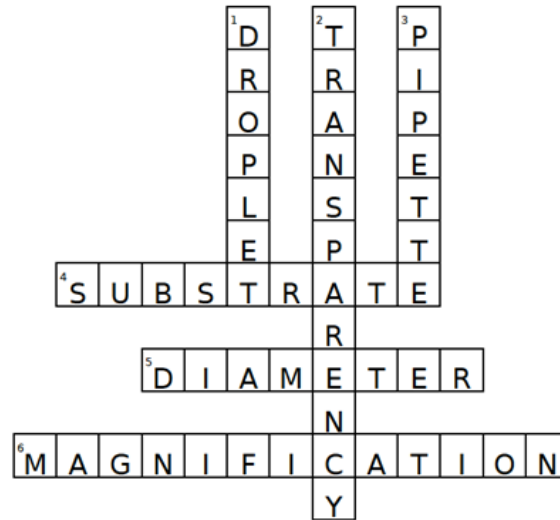
- *Shape ; Transparency*
-





ACTIVITY NAME: Little Liquid Lenses - ACTIVITIES ANSWERS)

Little Liquid Lenses - Vocabulary Crossword Puzzle



Down:

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