

red – What does it DO?

(bonus: give it a descriptive name_____)

orange – drawing

orange – describe shape:

(bonus: measure it in millimeters)

orange – What does it DO?

(bonus: give it a descriptive name_____)

green – drawing

green – describe shape:

(bonus: measure it in millimeters)

green – What does it DO?

(bonus: give it a descriptive name_____)

2. What does a lens do to a beam of light? Use a flashlight to see what the lenses do when light is shined through them. Shine the light down to a dark surface.

yellow
blue
white
red
orange
green

3. Now, make CATEGORIES with the lenses. Group them together in some way. (make a graphic organizer)

We grouped them
this way because:

What do Lenses Do? part 2

5th grade science: Light & the Eye

NAME: _____

DATE: _____

GIBUSH: _____

4. Create your own DEFINITION of a lens

(make sure to include what a lens does to light and how it changes what you are able to see):

A lens is _____

5. NAMING: See if you can figure out which lens is which! You can look up the definitions of the words in the names to help you. The six lenses in your set are:

Name of lens	color sticker	WHY you think so?
double convex		
plano-convex		
converging concave-convex		
diverging concave-convex		
double concave		
plano-concave		

What do Lenses Do? part 3

5th grade science: Light & the Eye

NAME: _____

DATE: _____

GIBUSH: _____

Optional/Challenge – Problem 2:

How exactly do lenses WORK to help us see things bigger/closer or smaller/farther away?

6. *WATCH the demonstration with the lasers. As we go, write/draw your own answers to #s 7-8 below:*

7. What is the FOCAL POINT of a lens?

8. What is the FOCAL LENGTH of a lens?

9. CHALLENGE: Mini building project: **Use any combination of lenses to make a device that makes an object appear smaller or larger (and in focus).**

- First, determine the focal lengths of the lenses you choose to use and incorporate them into your design.
- On the back of this page:
 - draw your design
 - record info about all lenses used in the design
 - type of lens, focal length
 - write instructions for how your device works



Lenses Lesson by Deanna McBeath is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).