Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_\_\_\_\_\_\_\_

**Station 4: Convex and Concave Mirrors and Lenses**

**Directions:** Read the following Focus question, tasks, part 1 and 2. Check mark your steps as you complete them.

**\_\_Focus Question:** How does light behave when it hits a convex/concave lens vs. convex/concave mirror.

**\_\_Task:** You are going to observe and gather data from sources to compare the behavior of light when it hits a convex/concave lens vs. a convex/concave mirror. Using these sources, you are going to construct a model illustrating and explaining your response to the focus question.

\_\_**Part 1**: Get your assigned Chromebook and watch the following two Videos: Concave Mirror - Why is your reflection upside down on a spoon? | Smart Learning for All and Concave and Convex Mirrors.

<https://www.youtube.com/watch?v=N6n0FAZ_6N8&t=47s> and <https://www.youtube.com/watch?v=jtTBOMVMSYM>

**\_\_**2. Gather evidence to help you respond to the focus questions: How does light behave when it hits a convex/concave lens vs. convex/concave mirror?

|  |  |
| --- | --- |
| Convex Mirror Evidence | Sketch |
| Concave Mirror Evidence | Sketch |

**\_\_Part 2: Online Exploration**

**\_\_**1. Go to <http://ca.pbslearningmedia.org/asset/lsps07_int_refractdemo/> (also on my blog) Hold CTRL and click to open the site.

2. Watch the video Convex Lens - Can a magnifying glass burn paper? <https://www.youtube.com/watch?v=cf_aUBbyuts> while you are watching the video, gather and record evidence on your data table

|  |  |
| --- | --- |
| Convex Lens Evidence | Sketch |
| Concave Lens Evidence | sketch |

\_\_\_**Part 3: Sum it all up!**

1. Circle one option below to complete

A. Draw a scene that could be from everyday life. This scene needs to include a convex lens, convex mirror, concave lens and concave mirror being used. Your illustration should be colored, detailed and labeled with a caption explaining the scene/illustration.

Checklist

\_\_\_Convex lens \_\_\_Convex mirror \_\_\_Colored \_\_\_Labeled

\_\_\_Concave lens \_\_\_Concave Lens \_\_\_Detailed \_\_\_ Caption

B. Write a written response answering your two focus questions: How does light behave when it hits a convex/concave lens vs. a convex/concave mirror? You must answer both questions fully using one piece of textual evidence and one piece of lab/activity evidence with their sources.

Checklist

\_\_\_Fully answered both questions \_\_\_One piece of lab/activity evidence \_\_\_Explains the evidence clearly

\_\_\_one piece of textual evidence \_\_\_ introduces all evidence clearly