## REFLECTION AND TRANSMISSION OF LIGHT: STUDENT ANSWER SHEET

## Activity 1: Transparent, Translucent, and Opaque Light Transmission

Complete the following table by putting a check mark in the appropriate column for each filter.

| Shield name | Transparent | Translucent | Opaque |
| :---: | :--- | :--- | :--- |
| White tissue <br> paper |  |  |  |
| Red tissue <br> paper |  |  |  |
| Wax paper |  |  |  |
| Black trash bag |  |  |  |
| Clear plastic <br> bag |  |  |  |
| Black mesh |  |  |  |
| Aluminum foil |  |  |  |
| Cloth material |  |  |  |
| White paper |  |  |  |
| Clear plastic <br> sheet |  |  |  |
| Glass |  |  |  |

1. What do you think causes some materials to be transparent and others to be opaque? Explain.

## Activity 2: Reflection off a mirror

1. How did the word phrases appear when the paper faced the mirror the first time?
2. When you turned the paper upside down and faced it towards the mirror, why did the first words of each phrase appear written correctly?
3. Was it hard for you to trace the star? How about others in your group, was it easier or harder for them than it was for you? Explain.

## Activity 3: The Law of Reflection

1. Define the Law of Reflection.
2. How did you observe that law in the experiment with the paper protractor?
3. Were you able to hit the target? Draw or explain one strategy you used to hit the target with the light.

## Experiment 4: Reflection and the Periscope

1. Draw the periscope with its mirrors, your eyes, and the papers on your desk you were looking at to illustrate the direction the mirrors were facing for you to see the paper on your desk.

Is the image upside down?
2. Draw the periscope with its mirrors, your eyes, and the student across from you at your desk to illustrate the direction the mirrors were facing for you to see your classmate.

Is the image upside down?

