DATE: NAME: CLASS:

CHAPTERS 4–6

Optics Tic-Tac-Toe

Activity 8

Goal • Use this activity to demonstrate your understanding of the material covered in Unit 2.

What to Do

1. Look at the tic-tac-toe grid on the next page of this assignment. Select any three assignments that form a straight line on the grid. Complete the assignments over the course of the unit.

2. Use the table below to summarize your assignment due dates and evaluations.

Assignment Selected	Due Date	Evaluation

Tic-Tac-Toe Board

Create a time line showing the history of the development of the microscope.	Create a collage of pictures showing the use of various types of electromagnetic radiation.	Research Snell's law to describe how the angle of incidence and angle of refraction are related mathematically.
Create a poster/collage or multimedia presentation that describes the benefits lenses have had on our society.	Prepare a report on the different optical devices, and their uses, presently found on a school bus.	Build an optical device using lenses and/or mirrors.
Interview someone who uses optical devices on a regular basis in the workplace. Ask questions that include the following: – How do you use the device in your job? – Could you do your job without the device? – What training was required to learn to use the device?	Prepare a report and presentation on the magnitude of the speed of light.	Create the cartoon characters Wavelength, Frequency, and Energy. Describe the land, Electromagnetic Spectrum, in which they reside. Show how some powers can vary in different parts of the land.