

Name: _____ Date: _____ Class: _____

Student Worksheet

Refraction Tank: Independent Inquiry

Safety

Never shine a laser into anyone's eyes. It can cause permanent blindness.

Materials

- refraction tank
- water
- laser pointer

Before you begin:

Make sure the water level reaches horizontal line (90°) on the refraction tank and turn on the laser.

Procedure

Explore the different ways the laser beam can bend using the refraction laser tank. Find out all you can about the relationship between the entering laser beam going in and the exiting laser beam. Prepare to share at least one insight with the rest of the class.

Challenge #1

Find the relationship between the incoming light beam (*angle of incidence*) and the outgoing light beam (*angle of refraction*) as light travels from water into air.

Challenge #2

Find the relationship between the incoming light beam (*angle of incidence*) and the outgoing light beam (*angle of refraction*) as light travels from air into water.