

# Light and Shadows- Program Highlights



Grade: 4    Length: 2 hours    Number of volunteers requested: 3    Student Booklet: Yes

Please refer to [www.tpet.ca](http://www.tpet.ca) for a complete list of SLE's covered in this field trip!

## Activities

### Light and Shadows Stations

Each station gives a mini lesson about the SLEs being learned. This lesson is followed by either building a related device or completing a related activity.

#### Station 1: Reflection

Volunteer English Language Proficiency: ★★

- Reflection mini lesson using **mirrors and lasers**
- Investigate how a periscope works
- **Build a periscope** and try it out.

#### Station 2: Material Classification and Shadows

Presenter runs this station

- **Transparent, translucent and opaque mini lesson, predicting and testing, and classifying materials activity**
- Perform a **shadow puppet show**, noting how figures change size when positioned at different distances from a light source

#### Station 3: Refraction

Volunteer English Language Proficiency: ★★★

- **Refraction, convex, concave** mini lesson using different types of lenses
- **Use a ray box to** experiment with bending light.

#### Station 4: Light and Color

Volunteer English Language Proficiency: ★★

- **Color spectrum and color separation mini lesson**
- Use a unique object to explore color separation
- Color combination mini lesson
- **Build a color spectrum spinner to explore color combination** and test it out.



#### Closing activity:

- Review information learned at stations
- Discuss sun safety using pinhole camera and #14 welders glass