

## Optics Video Introduction

The Science North video “Optics for the Classroom” can be used to accompany the Laser Maze Lesson plan and its additional material. The video serves as an introduction for students to optics and light and covers topics such as the electromagnetic spectrum, the components of the eye and lenses. These topics can be tied into the Grade 10 Light and Geometric Optics curriculum strand from which the lesson plan was based on.

Watching this video and using it to supplement the lessons can be beneficial to French as a Second Language learners. Watching the video in French and making connections to the images on screen can help students familiarize themselves with the vocabulary being used. Additionally, all the Science North videos are available with closed captioning which will allow students to read the text and make deeper connections with their learning.

The Laser Maze lesson plan has three French as a Second Language specific activities; the Anticipation Guide, the Imagine-Refine-Predict-Confirm and the Recall in Order of Importance activities. While these activities are set-up to learn about the law of reflection, they can easily be modified to be used with the video.

### **Anticipation Guide**

The Anticipation Guide is a form of diagnostic self-assessment that the students can fill out before the video to gauge their understanding of the concept. By doing this first, then watching the video, students can identify what they know and what aspects they still need to learn. To gear it to the video, some questions could include:

- We can see the full range of the electromagnetic spectrum
- All people see light the same way
- There are cones in the eye that process every colour of light

### **Imagine-Refine-Predict-Confirm**

This activity asks students to make a prediction based on their prior knowledge, share it and then refine it based on the lesson. The video can be used with this tool by asking the question “Draw how you think light is interpreted by the eye”. At this stage, students can follow the steps in the handout and modify their drawings based on what they see in the video.

### **Recall in Order of Importance**

To complete this activity, students write very important ideas, ideas of medium importance and less important ideas based on what they learned. This is easily accomplished using the video by having the students fill out the handout once they have watched the video once or twice.

After having watched video multiple times, if students still have gaps in their vocabulary or are having challenges with certain terms and concepts, the teacher can focus on those words using the other activities in this lesson plan. In such a way, the classroom videos can be used with the activities to provide a deeper learning for French as a Second Language students.

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