



Task: Oh Say Can You See

Alignment of Performance Task with National Standards

Grade Level: 9-12

Specific skills and knowledge demonstrated by the task:	Alignment with Project 2061 Benchmarks for Science Literacy	Alignment with National Science Education Standards
<p>Students' understanding of electromagnetic radiation including how differences in the way waves travel are due to differences in wavelength and properties of materials.</p>	<p>4F- Motion (9-12)#3: ...A great variety of, radiation is in the form of electromagnetic waves: radio waves, microwaves, radiant heat, visible light, ultraviolet radiation, x-rays, and gamma rays. These wavelengths vary from radio waves, the longest, to gamma rays, the shortest....</p> <p>4F- Motion (9-12)#5 Waves can... reflect off surfaces, be absorbed by materials they enter [<i>or be transmitted through them</i>]...All these effects vary with wavelength.</p>	<p>Standard B Physical Science: Interactions of Energy and Matter#1 ...Waves...have energy and can transfer energy when they interact with matter.</p> <p>Standard B Physical Science: Interactions of Energy and Matter#2 ...Electromagnetic waves include radio waves, microwaves, infrared radiation, visible light, ultraviolet radiation, x-rays, and gamma rays...</p>
<p>Students' ability to use visuals, such as charts and maps, to communicate information.</p>	<p>12 Communication Skills (9-12)#1-Make and interpret scale drawings [maps]</p> <p>12 Communication Skills (9-12)#7- Use tables, charts, and graphs in making arguments and claims in oral and written presentations.</p>	<p>Standard A: Inquiry-Communication: ... appropriately, developing diagrams and charts...</p>
<p>Students' ability to present their findings clearly and effectively.</p>	<p>12D Communication Skills- Essay- "clear and accurate communication"</p>	<p>Standard A: Inquiry-Communication: ...accurate and effective communication including expressing concepts, reviewing information, summarizing data, using language appropriately, developing diagrams and charts,...speaking clearly and logically...</p>