



## **Task: Point of View**

### Alignment of Performance Task with National Standards

Grade Level: 9-12

<b>Specific skills and knowledge demonstrated by the task:</b>	<b>Alignment with Project 2061 Benchmarks for Science Literacy</b>	<b>Alignment with National Science Education Standards</b>
Students' ability to describe and interpret, using the different wavelengths of the electromagnetic spectrum. The different images generated by observation of Cassiopeia A or the Crab Nebula and the stellar processes that produced them.	<b>4F- Motion (9-12)#3:</b> ...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....	<b>Standard B Physical Science: Interactions of Energy and Matter#2</b> ...Electromagnetic waves include radio waves, microwaves, infrared radiation, visible light, ultraviolet radiation, x-rays, and gamma rays...
Students' ability to use visuals, such as charts and maps, to communicate information.	<b>12 Communication Skills (9-12)#1-</b> Make and interpret scale drawings [maps]  <b>12 Communication Skills (9-12)#7-</b> Use tables, charts, and graphs in making arguments and claims in oral and written presentations.	<b>Standard A: Inquiry-Communication:</b> ... appropriately, developing diagrams and charts...
Students' ability to accurately and effectively communicate scientific information, integrating scientific information and visual images, about a supernovae event	<b>4A Universe (9-12)#2</b> ... Eventually, some stars exploded producing clouds containing heavy elements from which other stars (and presumably planets orbiting them) could later condense. The process of star formation and destruction continues.  <b>12D Communication Skills-</b> Essay- "clear and accurate communication"	<b>Standard D: Earth and Space-The Origin and Evolution of the Universe-</b> Stars produce energy from nuclear reactions, primarily the fusion of hydrogen to form helium, These and other processes in stars have led to the formation of all the other elements.  <b>Standard A: Inquiry-Communication:</b> ...accurate and effective communication including expressing concepts, reviewing information, summarizing data, using language appropriately, developing diagrams and charts,...speaking clearly and logically...