



## Task: Point of View

### 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
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-Essay-</b> "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...