



Teacher Notes for X-Ray Elaboration and Refutation

This activity is an example of an initial embedded engagement/diagnostic assessment strategy. Students work in pairs to correct erroneous information and elaborate on certain ideas and concepts. As teachers circulate and listen to the discussions among students, one can get a sense of what prior knowledge students have about X-Rays.

While some of the information is historical factual knowledge for setting the stage, key concepts such as electromagnetic wave energy are embedded in the task. Students have opportunity to research and construct initial knowledge which will be expanded upon through subsequent activities. The final product submitted by students can be used to gauge how prepared the class is to move on to subsequent learning activities and tasks.

This task is not intended to be used for summative assessment purposes, hence there is not a rubric included, but is embedded in the initial instruction to help students access and construct an initial understanding while simultaneously finding out what their conceptions are on the topic. Rereading the final story with the corrections contributed by the class is a useful way to have students check their ideas against others' thinking and research.