



Assessment (High School)

The EMR Pasta performance task is an excellent tool to assess student understanding of the distortions contained within models in general, and the electromagnetic spectrum in particular. Students construct their own version of the electromagnetic spectrum using a variety of pasta shapes, and then present their models and provide an explanation of how their pasta analogy/model does and does not represent the electromagnetic spectrum. The alignments to the National Standards and Benchmarks are included, along with the scoring rubric.

The [Frequency and Wavelength demonstration](#) included with the EMR Pasta performance task uses a pasta machine. This demonstration will help students understand that electromagnetic radiation is all the same thing. Only the shape is different. It is a common misconception that since we can see the visible spectrum, and hear parts of the radio spectrum, and get sunburned by part of the UV spectrum that the different bands are not really related to each other.

If you want to involve your students in a more in-depth assessment process you may want to use the two performance tasks [Oh Say Can You See](#) or [Signals from the Cosmos](#).

These assessment activities require the students to gather information and construct presentations.