



Scoring Rubric: Electromagnetic PASTA (High School)

Scoring Criteria	1 Attempted Demonstration	2 Partial Demonstration	3 Proficient Demonstration	4 Distinguished Demonstration
<p>Content Knowledge Students' ability to describe the different types of electromagnetic radiation (EMR), including their uses by humans.</p>	<p>Student attempts to describe at least 3 types of EMR. Student attempts to arrange them by some criteria, and/or describes at least 3 human applications. There may be major errors.</p>	<p>Student describes at least 5 types of EMR, arranges them by increasing or decreasing wavelength, and describes at least 5 human applications. There may be slight omissions or minor errors.</p>	<p>Student correctly describes 7 types of EMR, arranges them by increasing or decreasing wavelength, and describes a human application of each.</p>	<p>Student correctly describes, in supporting detail, 7 types of EMR, arranges them by increasing or decreasing wavelength, and describes a human application of each. Student may offer sophisticated and/or insightful details.</p>
<p>Communicate with a Model/Display Students' ability to represent the electromagnetic spectrum with a physical model/display that draws analogies between the model and the material used.</p>	<p>Student creates a physical model/display of at least 3 components of the electromagnetic spectrum, using pasta, and draws at least 1 analogy between the characteristics of the pasta and the EMR it represents. The model/display may contain major errors.</p>	<p>Student creates a physical model/display of at least 5 components of the electromagnetic spectrum, using pasta, and draws at least 3 effective analogies between the characteristics of the pasta and the EMR it represents. The model/display may contain minor errors.</p>	<p>Student creates an effective, neat and organized physical model/display of the 7 components of the electromagnetic spectrum, using pasta, and draws effective analogies between the characteristics of the pasta and the EMR it represents.</p>	<p>Students creates a highly effective, visually appealing, well-organized, self-explanatory physical model/display of the 7 components of the electromagnetic spectrum, using pasta, and draws effective and logical analogies between the characteristics of the pasta and the EMR it represents. Student may offer sophisticated and/or insightful details.</p>
<p>Critique of a Model Students' ability to critique a model.</p>	<p>Student critiques the model providing at least 1 reason why it is either like or unlike the real electromagnetic spectrum. Reason(s) may be irrelevant, overly obvious, or illogical.</p>	<p>Student critiques the model providing at least 1 significant reason why it is either like or unlike the real electromagnetic spectrum.</p>	<p>Student critiques the model providing at least 1 significant reason why it is both like and unlike the real electromagnetic spectrum.</p>	<p>Student effectively critiques the model providing at least 2 significant reasons why it is both like and unlike the real electromagnetic spectrum. Reasons given may indicate higher level reasoning beyond the obvious features of the model.</p>