

Scoring Rubric: Electromagnetic PASTA (High School)

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