Elementary Exhibition Recognition Sticker Descriptions

	Sticker	Criteria	
		Experiment	Study
Introduction	**1. Questioner**	Forms a question that clearly identifies the relevant variables.	Forms an essential question that guides the study. (What did you want to learn?)
	2. Predictor	Variables form a clear prediction statement indicating the direction of the relationship between variables.	
	3. Hypothesizer	Support for prediction is logical, reasonable, and factual.	
Methods	**4. Designer**	Conveys procedures for measuring the outcome of the experiment (DV), manipulating a critical variable (IV) and controlling most other critical variables (CV).	
	5. Technician	Selects and applies tools, equipment and techniques to acquire data of sufficient precision and accuracy.	Selects a variety of appropriate sources for research.
	6. Safety	Follows safety procedures with only occasional lapses.	
Results	**7. Recorder**	Recordings are organized and contain few errors or omissions - data is presented in a table that shows the relationship between independent and dependent variables.	Research findings are written in an organized manner, in own words; uses appropriate terminology and units where applicable.
	8. Observer	Makes sufficient observations.	Collects sufficient information.
	9. Grapher	DV is graphically displayed for each trial.	Information is displayed graphically. (graphs, tables,etc)
	10. Analyzer	IV to DV relationship is displayed in an appropriate format (graph type); trends shown are related to the prediction statement (IV, DV).	Data provided in tables, graphs are explained clearly (orally).
Discussion	**11. Thinker**	Findings that relate to purpose/prediction are summarized.	Findings that relate to the question are summarized. Scientific concepts are understood. (What did you learn?)
	12. Critic	Sizes and sources of experimental errors are identified.	Reputable and authentic sources were chosen for research. (Why did you choose these sources?)
	13. Communicator	The display is clear and logical. The oral presentation is enthusiastic and demonstrates understanding.	The display is clear and logical. The oral presentation is enthusiastic and demonstrates understanding.
	14. Mastermind	Data trends are explained making connections to scientific concepts; scientific terminology is used appropriately.	Implication for real world application of research; discusses value of the research. Why do you think this is important?

See over for Engineering

Elementary Exhibition Recognition Sticker Descriptions

	Sticker	Criteria
		Engineering
Introduction	**Questioner**	Problem identification. Empathy – why? Keeping end user in mind How do you know? Personal connection. How might we….?
	Predictor	
	Hypothesizer	
Methods	**Designer**	Labelled sketch/design for prototype; could be a scaled down model.
	Technician	Building a Prototype – appropriate use of tools and materials. Can explain reasons for material and tool choices.
	Safety	Uses tools and materials safely – (responds to questions about safety specifically with respect to the project).
Results	**Recorder**	Records observations and data to determine the need (why) for the prototype/project. Records each iteration of prototype (sketches, photographs, descriptions); problems encountered and next steps.
	Observer	Uses observation to determine the need (why) for the prototype/project. Makes observations during testing of prototype; changes prototype based on observations.
	Grapher	Graphs data collected from initial observations (why) and/or data from prototype tests. Can interpret and explain graphs.
	Analyzer	Analyzes data collected from initial observations and/or data from prototype tests. Based on this analysis, can come with next steps.
Discussion	**Thinker**	Findings from prototype tests are summarized. What did you learn? Where could you go from here?
	Critic	Based on the why and keeping the end user in mind, has considered areas that require further development during the different iterations of the prototype.
	Communicator	The display is clear and logical. The oral presentation is enthusiastic and demonstrates understanding.
	Mastermind	Discusses the value of the work that has been done so far; uses appropriate scientific vocabulary. Finds other potential applications for the prototype.

See over for Experiment and Study