

## Categories of Curiosity

1.) INCONGRUOUS: violating a model or heuristic rule of how the world functions.

*Example:* Doesn't this violate conservation of energy?

2.) CONGRUOUS: understanding of or gathering information about how a model or rule is applied (typically one just presented in class).

*Examples:* How do I calculate the effect shown in the simulation from Newton's laws?

3.) MODIFYING: probing what happens when the assumptions, parts, application, or parameters of the model or rule are changed.

*Example:* What happens if the temperature is not assumed to be constant?

4.) GENERALIZING/ANALOGY: comparing one model with another, drawing analogies or generalizing the model.

*Example:* When an earthquake occurs, do the plates slip when pressure generates melting at an interface, like a skate on ice?

5.) CAUSAL/CREATIVE: attempt to generate a new model, improve on an existing one, or search for novel patterns.

*Example:* How does this simulation of classical physics change if quantum mechanics is applied?

6.) INFORMATIONAL: finding information simply for its intrinsic interest or for diagnostic purposes. Why? Why? Why?

*Example:* How does the platypus relate to its environment?