



# Module 3: Designing Your Own Experiment

## Video 1: What is a Model System?

Gemma's question is about dinosaurs, specifically two of her favorite dinosaurs from Jurassic Park. Her hypothesis was:

If the spinosaurus and t-rex lived in the same area, then the spinosaurus lived in the water so the two would not compete.

In order to test this hypothesis she needed to develop a model system.

<b>What is a model system?</b>	
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Her model system involves studying dinosaur fossil samples and comparing the amounts of heavy oxygen.

Dinosaur	Expected to live...	Relative Amount of Heavy Oxygen (Write Higher or Lower)
T-Rex	On Land	
Spinosaurus	In the Water	

Therefore, Gemma is using quantitative data for her experiment. What are you doing for your experiment?

<b>What type of data are you collecting, qualitative or quantitative?</b>	
<b>Why?</b>	



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## Video 2: What are Experimental Variables?

Gemma now described to us the definition of a variety of variables. Lets review:

Please circle what type of variable each item serves as in Gemma's experiment

Item	Type of Variables		
Amount of Heavy Oxygen	Independent Variable	Dependent Variable	Confounding Variable
Type of Dinosaur	Independent Variable	Dependent Variable	Confounding Variable
Broken Machine	Independent Variable	Dependent Variable	Confounding Variable

What are the variables you have in your experiment?

What are your independent variables?	
What are your dependent variables?	
What are some potential confounding variables you may have?	