

**1. Controlled Experiments**

**Controlled Experiments**



<https://www.youtube.com/watch?v=VhZyXmgIFAo>

Mark

Molly

Whose plant do you think will grow more? Why?  
I predict that...

Because...

What were the results?

What is wrong with the experimental design?

What would you do to change the experimental design?

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### **Independent Variable:**

- Definition:
  
  
- The independent variable in the above experiment is:

### **Dependent Variable:**

- Definition
  
  
- The dependent variable in the above experiment is:

### **Consider this scenario:**

You have two fish – one goldfish and one Siamese fighting fish. You give them the same amount of food each day at the same time. One of the fish is in fresh water and the other is in saltwater. The objective of the experiment is to find out which type of fish consumes more food.

- Is this a controlled experiment? Why or why not?
  
  
  - How would you redesign this experiment to make it controlled?
  
  
  - Identify the independent and dependent variable in your redesigned experiment:
    - Independent:
  
  
    - Dependent:
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