

CREATING a HYPOTHESIS

Now that you have been thinking about your testable question, it is time to change it into a hypothesis which consist of two parts: an **idea** followed by a **prediction** statement.

In order to do this you must:

- Identify the specific independent variable(s) to be tested.
- Identify the dependent variable(s): How you will measure data.
- Use known scientific concepts to predict results



- Reference: [Writing a Hypothesis by Darci J. Harland.](#)
- CLASS ACTIVITY: [Practice Writing a Hypothesis Activity](#)
p. 63-67 from the reference above.

Example: Testable Question: What effect does light have on the growth of plants?

Hypothesis- IDEA + Identify Variables + PREDICTION

IDEA (formerly “because”):

Plants use light for photosynthesis. When plants are exposed to light, it creates an increase in the amount of photosynthesis occurring and a plant produces more glucose. Glucose is food for plants and is necessary for growth.

PREDICTION:

The independent variable was the amount of light that the plants received. The dependent variable (how data will be measured) was the change in height (quantitative), and the relative health (qualitative), of the plants, recorded on a daily basis for three weeks.



IF the intensity of light is related the photosynthesis in plants, THEN plants grown in the most intense light will increase in height more than the plants grown in less light.

OR

IF the duration of light exposure is related to photosynthesis in plants, THEN the relative health of the plants will progressively decline as plants are exposed to light for less time.

Design Project Resource- [Need+design criteria or constraints](#)

Assignment: Develop a Hypothesis/Prediction statement. (10 Points)- HARD COPY

- Type your hypothesis in the presentation provided below- First draft due [Due Wed 10/4 Villa](#) Patel [Swiercz](#)
- Write your hypothesis in two labeled parts as specified above. (4 points)
- You should have at least 2 primary research articles printed and attached that you are using to form/develop and substantiate your idea. (6 points) Link these sources in your assignment. Print these sources and place them in your binder.