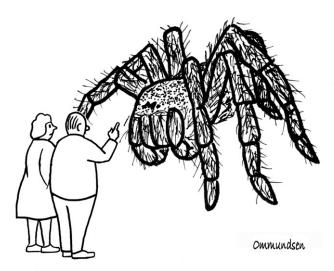
- A hypothesis **IS NOT** an educated guess. It is an **un**certain explanation for an observation, phenomenon, or scientific problem that can be tested by further investigation.
- Your hypothesis should be something that you can actually test, what's called a **testable** hypothesis. In other words, you need to be able to measure both "what you do" and "what will happen."

Use an If ... Then ... statement.

- *If* the *independent variable* changes, *then* the *dependent variable* will change.
- *If* the amount of soap increases, *then* the amount of water will increase.
- *If* I open the faucet [faucet opening size is the independent variable], *then* it will increase the flow of water [flow of water is the dependent variable].
- *If* a <u>plant receives fertilizer</u> [having fertilizer is the independent variable], *then* it will <u>grow to be bigger</u> than a plant that does not receive fertilizer [plant size is the dependent variable]."
- If I <u>put fenders on</u> a bicycle [having fenders is the independent variable], **then** they will <u>keep the rider dry</u> when riding through puddles [the dependent variable is how much water splashes on the rider]."



"I've narrowed it to two hypotheses: it grew or we shrunk."