

# Engineering for Strength!



**Variables – Day 2**

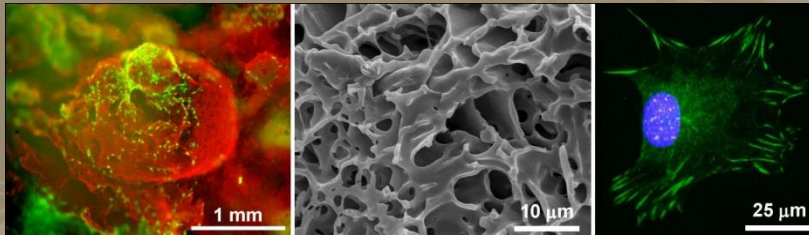
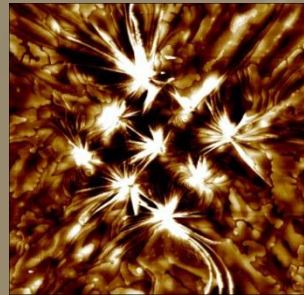
# Let's review...

- **What is one example of a mixture?  
Why is it a mixture?**
- **What is one example of a solution?  
Why is it a solution?**
- **What does “concentration” mean?**

# Why are we trying to design better adobes?



# Material Engineers...



- **Invent** new materials to use for lots of different things
- **Improve** existing materials
- Do lots of experiments and variable **testing**

# How to test adobes!

**control** A variable kept constant or controlled during an experiment.

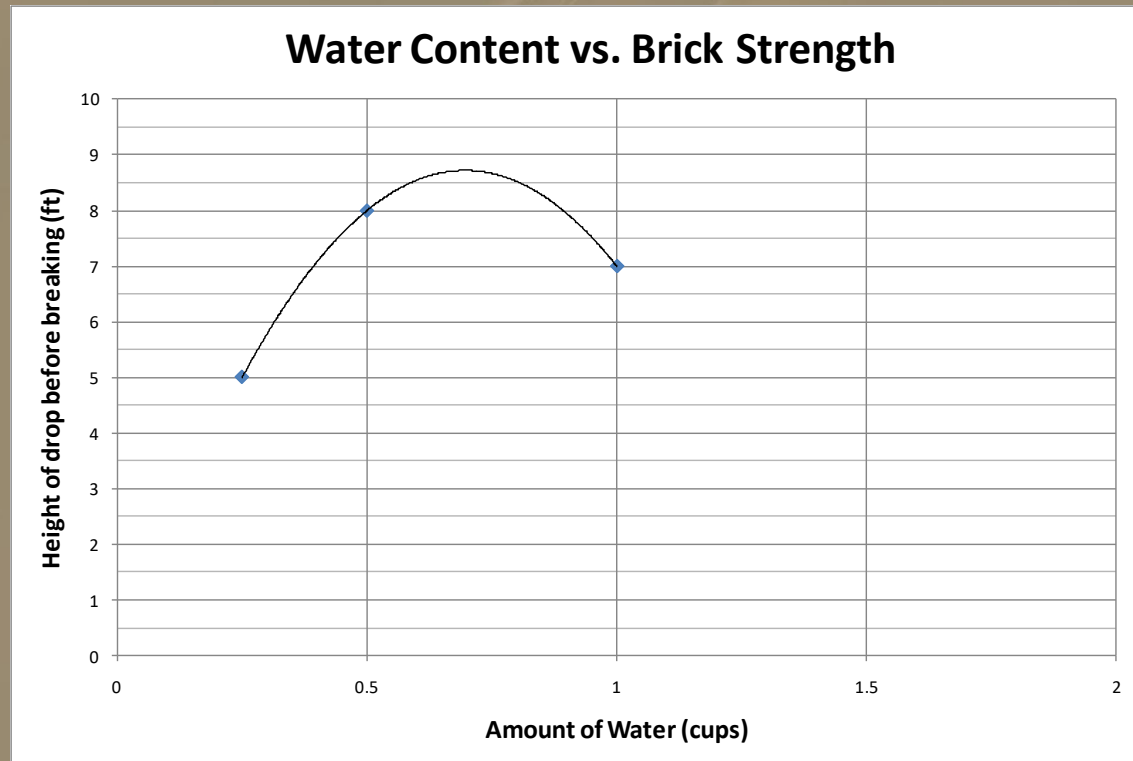
**variable** Something that is allowed to change during an experiment.

**independent variable** A variable that you intentionally change during an experiment, like the amount of water added to the mixture.

**dependent variable** A variable that changes **as a result of** a change in the independent variable; in this case, the strength of the adobe.

# Example Experiment Graph

dependent variable



independent variable

**Today, we are going to practice graphing as a class...**

- **Let's graph our data for each of the three different independent variables tested on separate graphs**
- **Do I have any volunteers to show us how?**

# Image sources

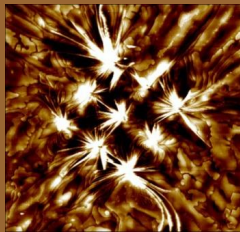


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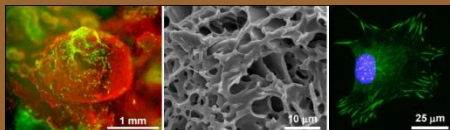
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