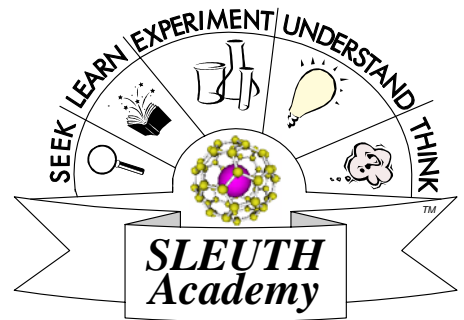


The Three Pigs Construction Company



In the story "The Three Pigs" the pigs are all building houses out of different materials. They then need to have their house survive

the Big Bad Wolf when he "huffs and puffs". We will try to see if we can build a house that can stand up to a big wind like a **hurricane**. What will we need to do to make our house stronger?



Question: Can we make our house stand up in the wind by making it heavier?

Hypothesis: If we add weight to the bottom of our house, then it will be harder for the wind to blow it down.

Let's test our hypothesis with an **experiment**.



Materials:

- half a shoe box for a house
- weights
- wood blocks
- electric fan for wind
- balance scale (grams)
- tape measure

<p>1 Measure the height, width, and depth of your box in cm and write it down here.</p> <p>Height = _____ cm</p> <p>Width = _____ cm</p> <p>Depth = _____ cm</p>	<p>2 Stand your box up on its short side with the open part in front of the wind. Does the box fall down?</p>
<p>3 Add weights and/or blocks and try it out in front of the fan again.</p>	<p>4 Weigh the weights/blocks that worked on the balance in grams. What is the least amount of weight (in grams) you need to add to get your box to stay up with the fan at high speed?</p>



UNDERSTAND

This chart is for recording your group's data and the class data.

Group Name	Box Height (cm)	Box Width (cm)	Box Depth (cm)	Amount of weight (g)

Answer the following questions using the class data above:

- Which box needed the most weight? _____
Why do you think it needed more weight than the other boxes? _____
- What was the variable (what were we testing) in this experiment? _____
- Were there other variables that we had that we were not testing? _____
What were they? _____
- What should we have controlled (kept the same) to make this a fair test? _____
- Look at our hypothesis on the first page of this activity and your data above. Did you prove our hypothesis? _____



THINK

Think about houses in hurricanes. What are some ways we can make our houses stronger to prepare for a big wind?



Sunshine State Science Standards:

SC.C.1.2.1, SC.C.2.2.2, SC.C.2.2.4, SC.D.1.2.4,
 SC.D.1.2.5, SC.H.1.2.1, SC.H.1.2.2, SC.H.1.2.3,
 SC.H.1.2.4, SC.H.1.2.5, SC.H.2.2.1, SC.H.3.2.1,
 SC.H.3.2.2, SC.H.3.2.3, SC.H.3.2.4