#### Lesson Plan

Name: Laura Bieber

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Subject: Science

**Grade:** Three

**Content: (Topic):** Structures

Instructional Strategies: (Specific) Experiential Learning

**Outcomes:** SM3.1 Investigate properties of materials and methods of joinery used in structures.

#### **Indicators:**

- e) Analyze how various similar and dissimilar materials can be joined (e.g., gluing, nailing, screwing, stapling, taping, velcroing and tying) and identify the most appropriate methods for joining specific materials for an identified use.
- f) Use appropriate tools (e.g., hammer, nail, glue, and scissors) to cut, shape, make holes, sew, and assemble materials safely.

**Prerequisite Learning:** There is no pre-requisite learning for this lesson. However, the class has been learning about different types of structures for a few weeks now so this lesson builds on this knowledge.

### **Differentiated Learning/Adaptive Dimension:**

- Enough room for all of the different aspects of the lesson.
- Make sure the students are listening and fully understand all aspects of the lesson.
- Speak clearly and loudly for student with hearing restrictions.

**Preparation:** (materials, resources, equipment)

#### **Materials:**

Fan, paper, pencil, scissors, various materials such as, wooden sticks, paint chips, spools, buttons, popsicle sticks, clothes pins, playing cards, tinfoil, string, thicker string/rope, plastic hemp, clay, fun foam rectangles, clay, elastic bands, sticky tack, feathers, pipe cleaners

Set (5 min)	
	Student Engagement/
I will huff and I will puff and I will blow your house down!	Classroom
Does anyone know what story that is from?	

What were the three houses made of that the pigs built? (straw, wood, bricks)

Which one remain undamaged by the wolf blowing on it?

Yes, so today you are going to be the fourth little pigs and try to build a house as strong as the brick house. You will be given a bag of material to create your structure. The materials in the bag will are all you get to use. Therefore, make sure to use them wisely and think carefully about how they can be used to make your structure strong enough to survive the wolf's wind.

When your structure is complete, as a group write down why you think your structure will withstand the wolf's wind (refer to the instructions written on the whiteboard). Make sure to write all group members' name at the top of the page. This will be shared once all groups are completed.

Do you know what the wolf's wind will be? Ask students to guess. Good guesses- it is this fan.

When every group is done we will test each group's structure. If you are done early describe how each material was used in your structure on the same piece of paper as above.

Does everyone understand? I am going to number you off (1 to 10) and that will be your group. Stay seated and remember your number after I give you a number. After have all students have a number I will say, "group one stand up, here is your bag (will have piece of paper along with bag) and go work in that corner back there". Repeat for every number/group.

### Development (40 min)

Students build their structures and write down why they think their structure will withstand the wolf's wind.

If finished early, the group will also write how they used each type of material on the same piece of paper.

### Closure (15 min)

Do a timed test of each group's structure with the wolf's wind.

After the wind tests discuss as a class that the three little pigs used straw, wood and bricks. What are some of the items we used today? How did you use those items?

## Management Strategies

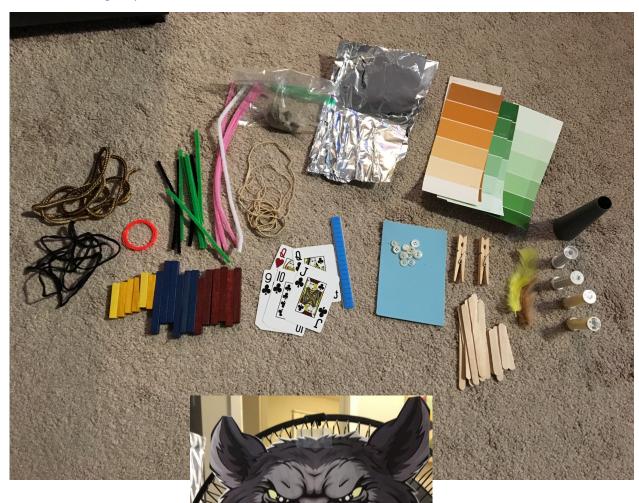
Ensure students understand what they are supposed to do.

If students become off task redirect them to what we are doing.

Circle the room constantly.

The discussion will show the students how each group used materials differently. Possible example: this group used their tinfoil as the walls but this group rolled the tinfoil up and used it to join other materials together. We all had different ideas to try.

# Materials each group had



The "Big Bad Wolf"

# Pictures of some of the houses built





