

E-WEEK ACTIVITY, DAY 1

APPLE TOOTHPICK TOWER CHALLENGE (& THE ENGINEERING PROCESS)

Activity discussion:

Day 1 activity includes a brief discussion of problem solving and a hands-on activity. The apple building activity is geared towards younger children, and is a great way to integrate learning into snack time!

For older kids, the activity can be modified to include different types of materials, and a challenge to build the sturdiest structure that can withstand simulated loads (for example, shake the paper plate to simulate an earthquake...can the building withstand the movement?)

Refer to the pages included in the packet to discuss with your child some of the basics of problem solving and the engineering process.



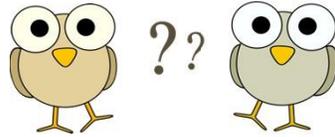
Instructions:

1. WASH HANDS!!!! Always wash your and your child's hands before the start of any activity involving food!
2. Begin the activity by talking with your child about how to solve the problem of building a structure that can stay upright. Use the problem solving method to figure out how to build the best structure.
3. Cut up apple into pieces or any other fruit you want (strawberries, bananas.....)
4. Place supplies on plate and have child build a tower or structure.
5. Can your child balance more fruit on the top?
6. Does the structure stand up better with a large base?
7. Does it fall over as it goes higher and higher?
8. As a challenge, have your child write down what worked and what did not in the building, and do the activity again using this new information. Is the second structure better than the first?
9. EAT!

Supplies:

- Apples
- Toothpicks
- Knife
- Paper Plates



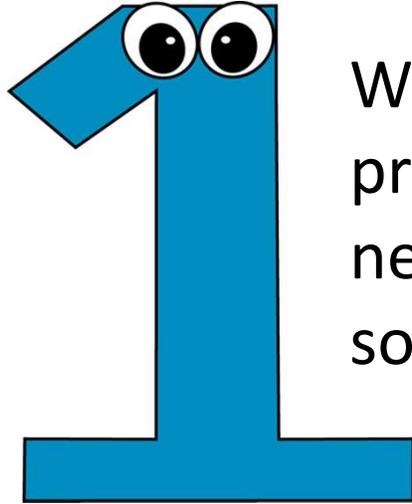


What do you do when you have a problem to solve????



Engineers start with three questions.....

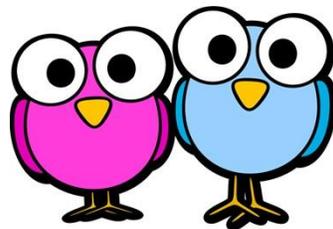




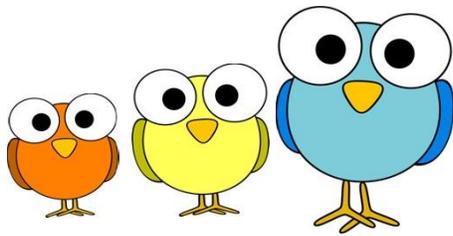
What is the problem that needs to be solved?.....



Who has the problem that needs to be solved?.....



Why is this problem important to solve?.....



The Engineering Design Process

