

**PROBLEM:**

You’ve recently discovered that your new puppy has a love for cereal. However, you’ve also discovered that your dog doesn’t have a lot of discipline and needs to become more obedient. You researched how to make your new puppy more obedient and you found some advice. You heard that teaching dogs new tricks will help them mind their owner and become more obedient. So, you’ve decided to teach your dog to catch a piece of cereal.

You tried to toss the cereal to your puppy, but he kept being impatient and even bit a finger once. The only thing left to try is to build a cereal shooter.

**DIRECTIONS:**

Use at least 2 simple machines in your design to create a complex machine to move a piece of cereal at least 30 centimeters. Your machine must be able to get to school and work consistently with only one touch.

**MATERIALS:** any common household item- do not go to store to purchase anything

Cardboard

Tape

String/ Yarn

Materials available at school

Popsicle Sticks

Paper

Plastic Silverware

(Other items may be available by request)

**Cereal Shooter**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

(Cereal Shooter’s Name)

*Draw and label your original design idea. Your labels should explain the materials each part is made from and the function of it.*

*After making and testing your design, draw and label your next prototype. Highlight or circle any areas that you have changed from your original design.*

*Write a paragraph that describes your complex machine completely. It should be detailed, accurate, and clear with a topic sentence, detail sentences, and a strong closing. It should explain how the prototype developed into the finished product. Be sure to answer the following questions:*

* *Who built the machine?*
* *Which simple machines are used within the machine?*
* *How far does it usually move the cereal?*
* *How does it work?*
* *What changes to the original prototype did you have to make?*
* *What did you learn from creating this machine?*

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