

4-H Stay Home, Stay Healthy Weekly Challenge

Week 4 | 4.17.2020 | Snohomish County 4-H | WSU Extension

engineering challenge!

challenge submissions due April 26th, 2020 by 11:59 pm

In one of my favorite books, *A Big Ball of String*, by Marion Holland, a boy must stay in bed due to a cold and finds that with imagination and ingenuity, he can do anything and everything, from his bed, with his big ball of string! This week we challenge you to do something similar (minus the cold!) by creating a complex way to solve a problem or accomplish a simple task using chain-reaction (commonly referred to as a Rube Goldman machine). The task you choose could serve a purpose, like turning on a light switch, or it could be just for fun, like having a marble travel a course to ring a bell, or pop a balloon! The more steps you include, the more complex your "machine" will be!

official challenge instructions . . .

Step 1) Gather materials and think of a task. Sometimes it helps to think of a task to do or problem to solve first, and sometimes it helps to find materials and then think of what you can do with them. Either way, you can build your machine with almost anything! Use materials you already have around your house, like dominoes, pencils, crayons, paper towel tubes, rulers, blocks, marbles, toys, books, tape, cereal boxes, yarn, magnets, popsicle sticks, pots and pans, cups, bean bags ... you get the idea! You could also watch these short video clips for ideas or inspiration:



- <https://www.youtube.com/watch?v=OHwDf8njVfo>
- <https://www.youtube.com/watch?v=2odi5nszWKc>
- <https://www.youtube.com/watch?v=Av07QiqmsoA>

Step 2) Build your plan! You may like to draw out plans first, and you may like to design as you go. As you put pieces where you think they should be, try them out. You may need to make adjustments along the way, or change the order of your steps - and that's okay!

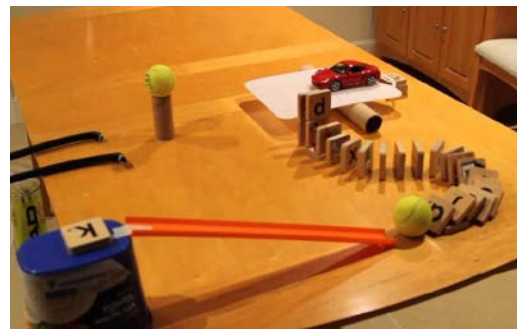
Step 3) Try it! Did your machine work? Congratulations! Can you add more steps? Do you want to make another? If it didn't work, make some changes and try again!

Step 4) Email a description or photo or video of your machine, and answers to the Challenge Questions to a.hernandez-hall@wsu.edu by April 26th, 11:59 pm.

Challenge Questions

Answers to these questions can be typed in an email, written and scanned and attached to email, or you can take a picture of your answers to attach to the email. You can ask a parent or guardian to help you.

1. What is your first and last name?
2. What is the name of your 4-H club?
3. What did you like about this challenge?
4. What part of this challenge was not so fun?
5. What did you learn while completing this challenge?



Step 5) Earn an awesome virtual badge! We're so excited to see what you create!