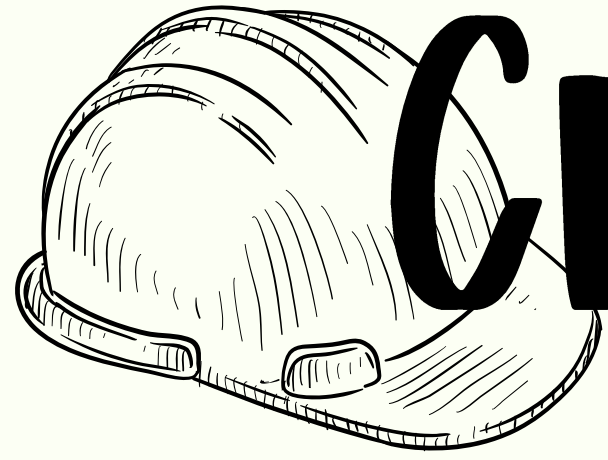


# CRAZY CONTRAPTIONS

HOME CHALLENGE

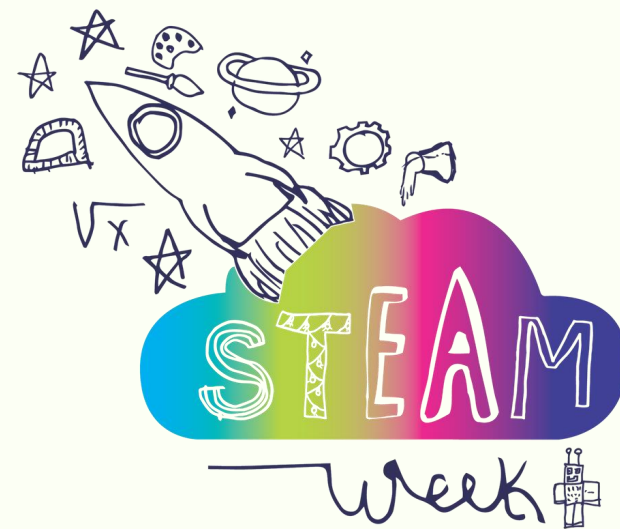
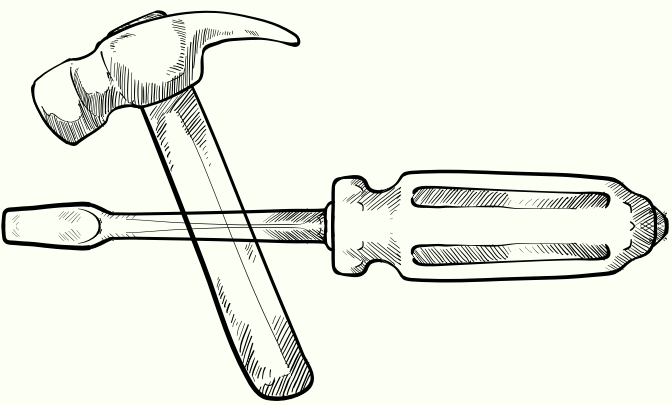
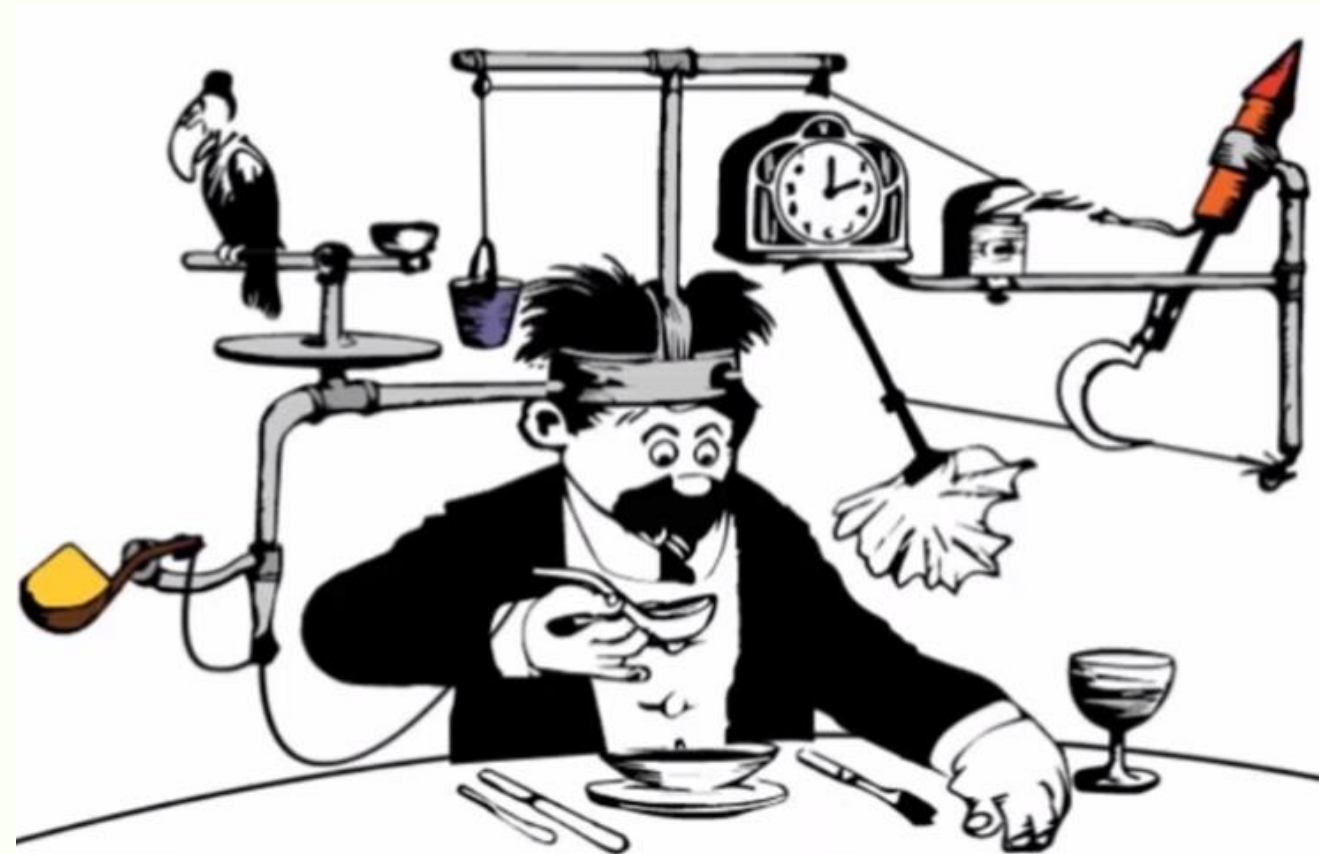


# CRAZY CONTRAPTIONS

## STEAM WEEK HOME CHALLENGE

**Your challenge is to create your own Rube Goldberg Machine!**

**This is a contraption, invention or device that uses a chain reaction to accomplish a very simple task in a very complicated way. It is mostly created using everyday objects.**



# RUBE GOLDBERG

**Did you know that our Crazy Contraptions challenge is inspired by the work of Rube Goldberg?**

**Rube Goldberg was an American, prize-winning cartoonist, sculptor, author, engineer, and inventor, and his work is a classic example of the combining of art and science.**

**Goldberg began his career as an engineer, and later became a cartoonist who drew extravagant pictures of contraptions made up of pulleys, cups, balloons, and watering cans that were designed to solve a simple task such as opening a window or setting an alarm clock. Interestingly, Goldberg only drew the pictures, and never built any of his inventions. However, these pictures have become inspiration for makers and builders who want the challenge of making wild inventions to solve everyday problems.**

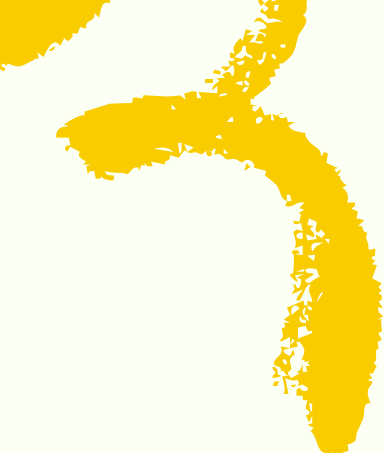


# What is a Rube Goldberg machine?



**A Rube Goldberg Machine is a contraption, invention or device that uses a chain reaction to accomplish a very simple task in a very complicated way. It is mostly created using everyday objects.**





# So, you want to build a Rube Goldberg machine?

## STEP 1: GET INSPIRED

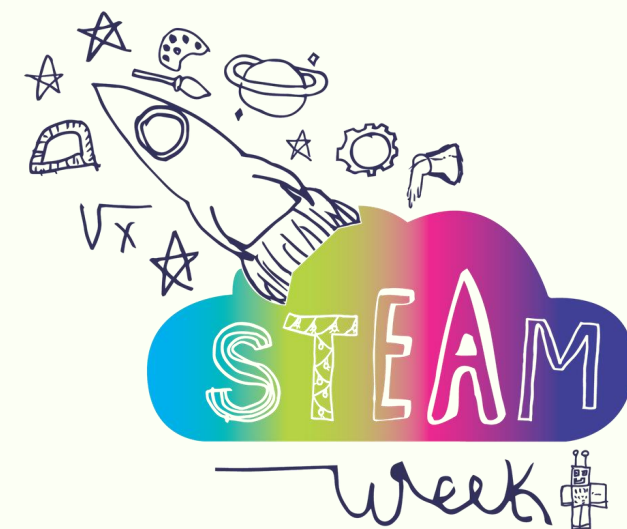
First things first, you'll want to watch some Rube Goldberg contraptions in action to get inspired and get some creative ideas in place.

## STEP 2: SOLVE A PROBLEM

Next, come up with a simple problem that you're trying to solve.  
For example:

\*Ring a Bell \*Pop a Balloon \*Open a Door  
\*Shut a window \* Put out a candle

Once you have a problem sorted out  
(and don't worry – you can change this later if you want),  
gather supplies...



# So, you want to build a Rube Goldberg machine?

## 3: GATHER YOUR MATERIALS

**Collect your supplies and then lay them out so they're easily seen. These should be everyday items that can be found in your home.**

**You will most likely start with some basics, and then you can search your home for more supplies as you go.**

**Remember you will be judged on your ability to use as many at home/recyclable materials as possible!**

**Here are some ideas to get you started...**



## SOME IDEAS

### THINGS THAT ROLL

Marbles, Balls, Tennis ball, Baseball, Bowling Ball, Toy, Cars, Skateboard, Roller Skates

### THINGS THAT MOVE

Dominoes, Toaster, Fan

### RAMPS

Toy Train, Tracks, Marble Runs, Books, Trays, PVC pipe, Plastic Tubing, Gutters

### RECYCLABLES

Cardboard, Cereal Boxes, Cardboard Rolls, Plastic Water Bottles, Cans, Aluminum Foil

### EVERYDAY MATERIALS

Chopsticks, Popsicle Sticks, Rulers, Wooden Blocks, Bowls, String, Tape, Sand, Pins, Balloons, Water, Fans, Vinegar and Baking Soda

# So, you want to build a Rube Goldberg machine?

## STEP 4: BUILD YOUR MACHINE

Once you have the supplies ready, it's time for the fun part...start building!



### A NOTE ON FAILURE

As you test and try out different set-ups, you'll undoubtedly fail a few times. But this is great news!

Failure is a core part of the invention process, and without these mistakes we won't learn how things really work.

So, embrace failure and celebrate it as part of the learning process!

# CRAZY CONTRAPTIONS

## STEAM WEEK HOME CHALLENGE

If you would like to participate in the Crazy Contraptions Challenge please remember the following points;

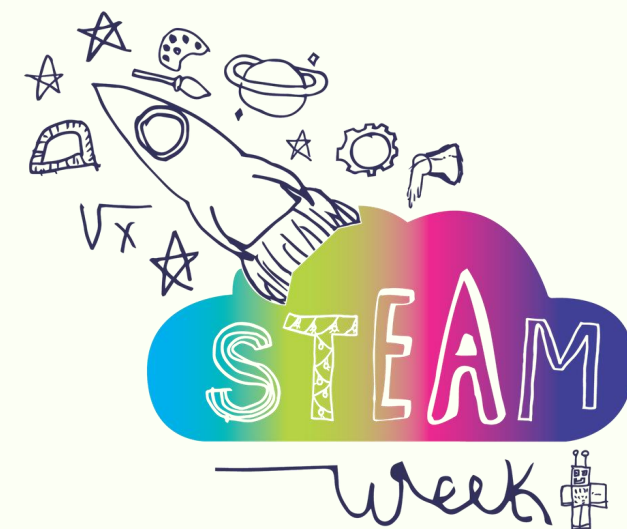
- You must make your contraption at home in your own time.
- You may work in teams, however must split the prize equally.
- You will be judged on your ability to be creative whilst using as many home/recyclable materials possible.
- You must take a video of your Crazy Contraption and send it to Mrs Parrella no later than

**Friday 12 June Week 7**

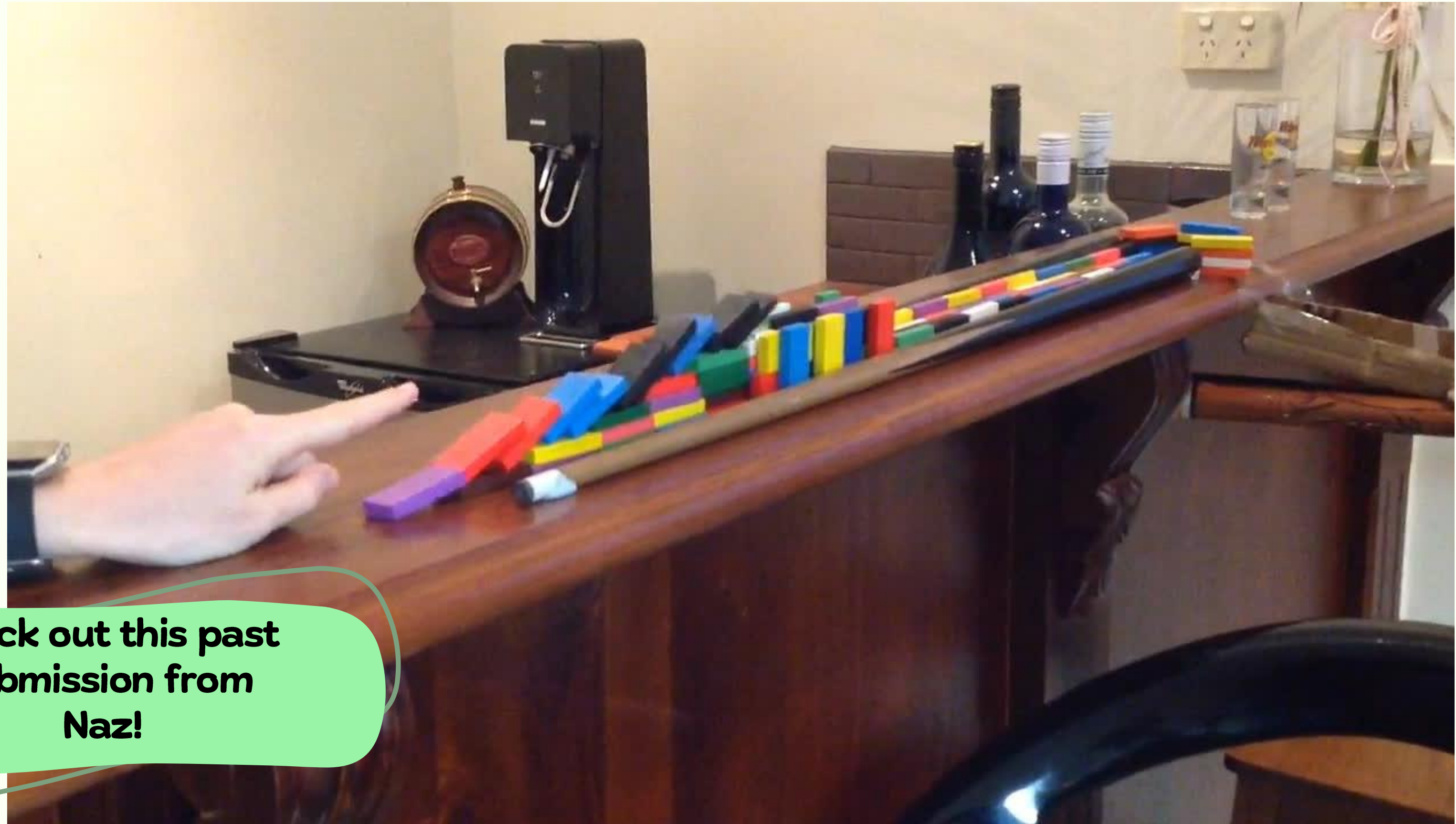
**Mrs Parrella:**

**[jessica.parrella@nazareth.catholic.edu.au](mailto:jessica.parrella@nazareth.catholic.edu.au)**

**Submissions can also be given via a USB to the Front Office.  
Please ensure these are labelled.**



# RUBE GOLDBERG MACHINE INSPO



Check out this past submission from Naz!