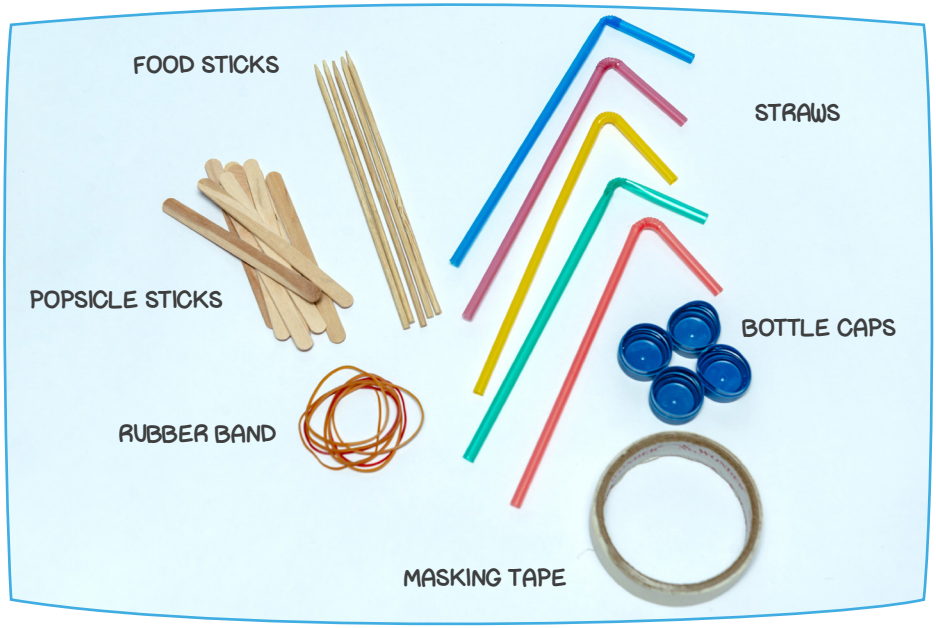
LESSON 2

Catapult

Catapults were ancient weapons that were used to destroy walls of forts by throwing large rocks. The catapults we shall build in this lesson are miniature models of those weapons. We shall use them to shoot paper balls over a long distance or tall obstacle.

WE WILL NEED THESE MATERIALS

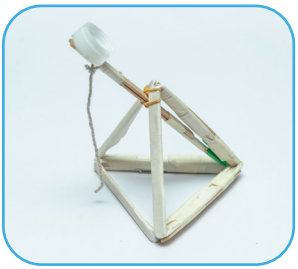


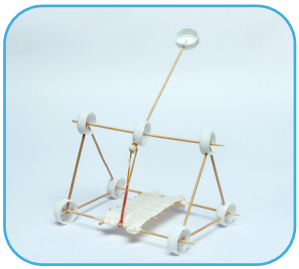
You can also use other materials you have, such as cardboard, thread etc.

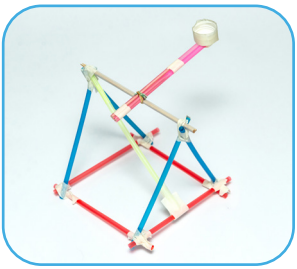
THESE QUESTIONS WILL HELP US GET STARTED

- What will your catapult be made of?
- What will power your catapult?
- What will your catapult look like?

HERE ARE SAMPLE MODELS TO HELP US GET IDEAS

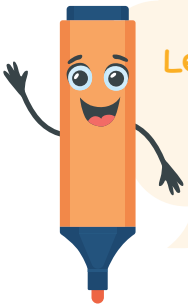






WE FOUND THESE TIPS HELPFUL WHILE BUILDING A CATAPULT

- Build a sturdy frame for your catapult. Triangles are extremely strong shapes.
- Think about the source to generate force for your catapult. Rubber bands are commonly used. You can also use a rigid stick or a tight string.



Let's experiment with designs

- Most catapults have a fixed angle at which they launch the paper ball. Can you build a catapult whose launch angle can be adjusted?
- Design a game that can be played using the catapults designed by your class.

Think like an engineer

What determines how far the paper balls are launched by your catapult?

Think like a physicist

How do the paper balls get the energy to travel the distance after being launched?

Reflection

Complete the sentence:
Two things I learnt are

_____

_____

How did the design of your catapult evolve during this activity?

_____

_____