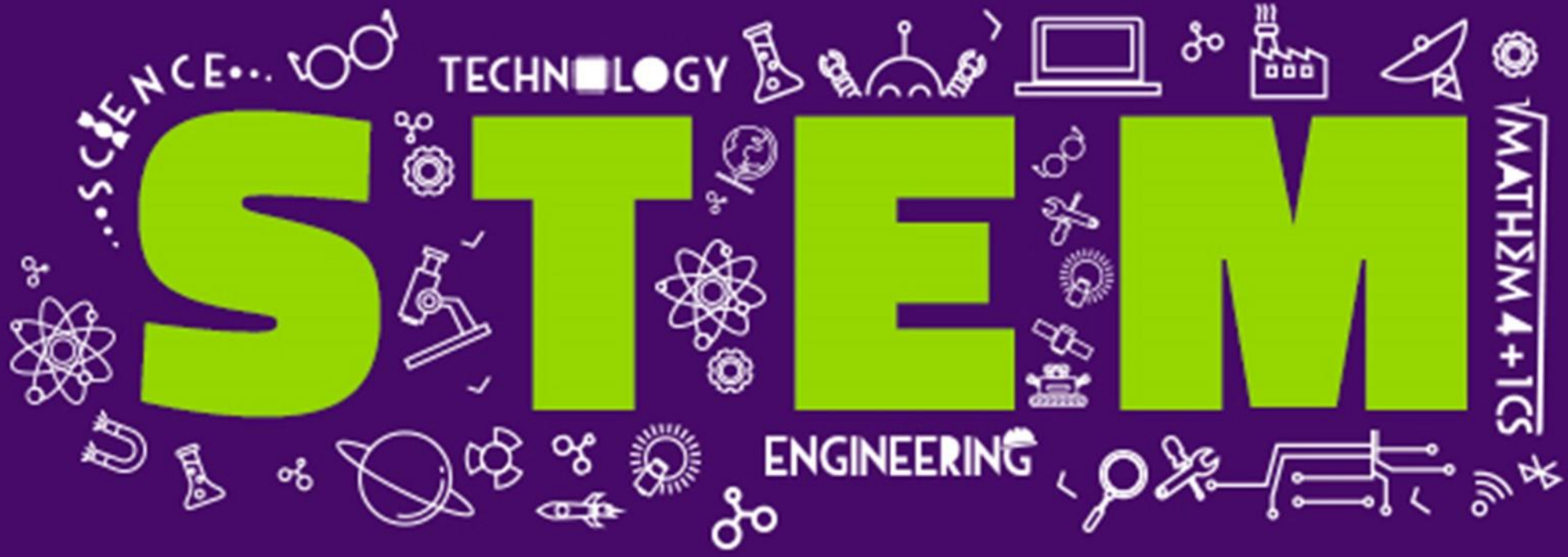
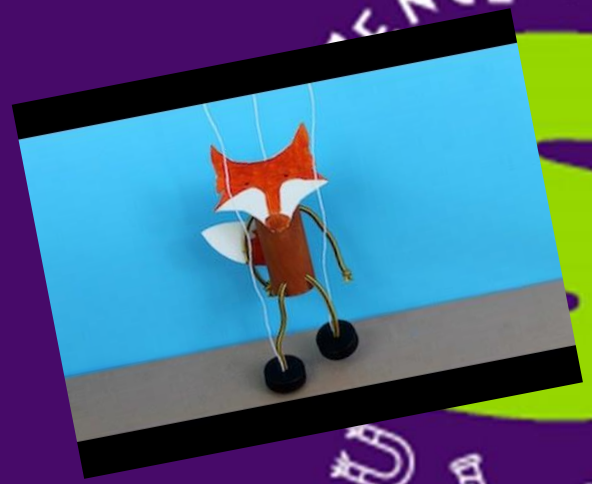
Firhouse ETNS STEM Challenge

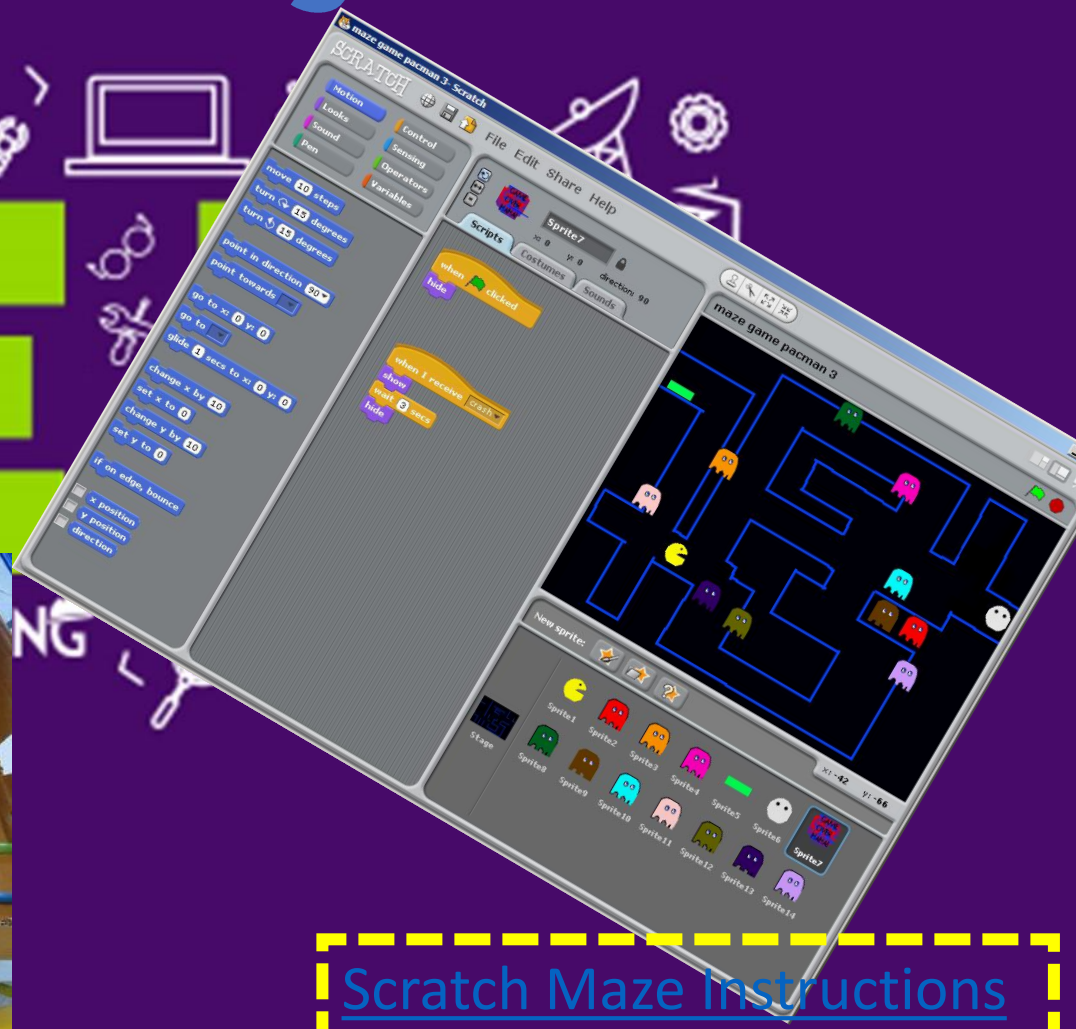


Create a puppet- Create a working and talking puppet and possibly somewhere for them to perform.



PDST Puppet Guide

Create a Maze- Use resources in the home or try coding a maze game.



Scratch Maze Instructions

Create the best toy ever!- Toy shops are closed so what can you create to take their place?

Things to Consider

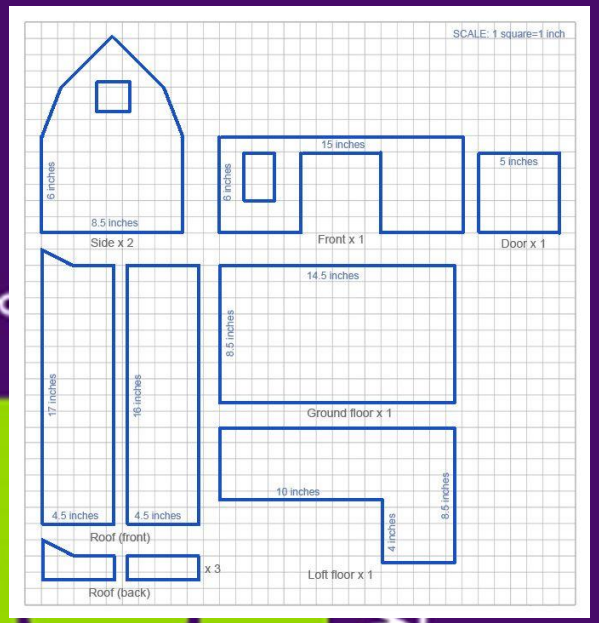
Who is your toy for? What age range? A toy for a baby is very different to a toy for a 10 year old.

Label your design with the materials needed to create this toy.

Include any levers, cogs, twists, pull strings, push buttons or other mechanical features that allow your toy to function and/or move.

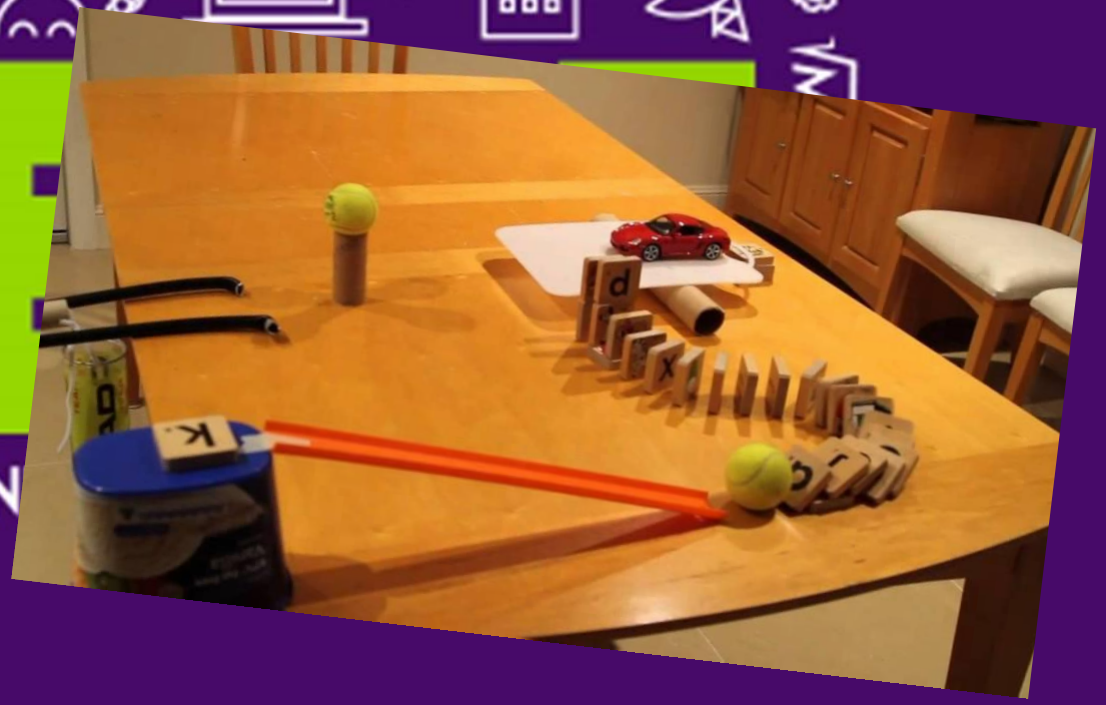
Your drawing might not be to scale. So include the measurements you would expect your design to meet in real life.

Consider shapes & colours in your design. What will attract children to play with this?



Create a Garbage Monster/ Robot- recycle objects in the home to create wonderful creations!

Make a Rube Goldberg Machine- can you create a machine when started creates a chain reaction? Lots of fun and experimenting in this one!

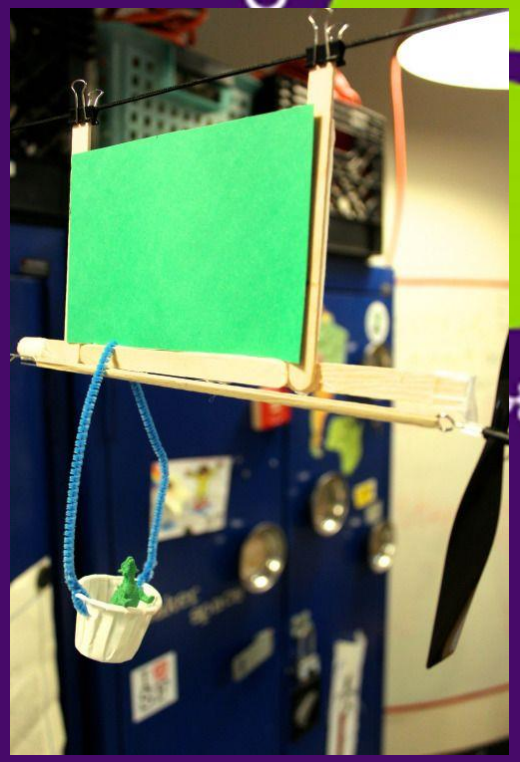


[Marble Run]

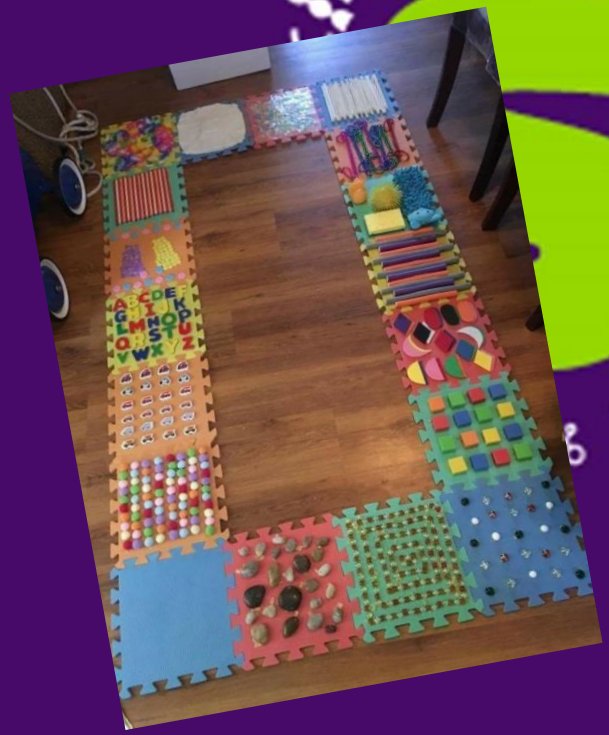
[Rube Goldberg Interactive Game]

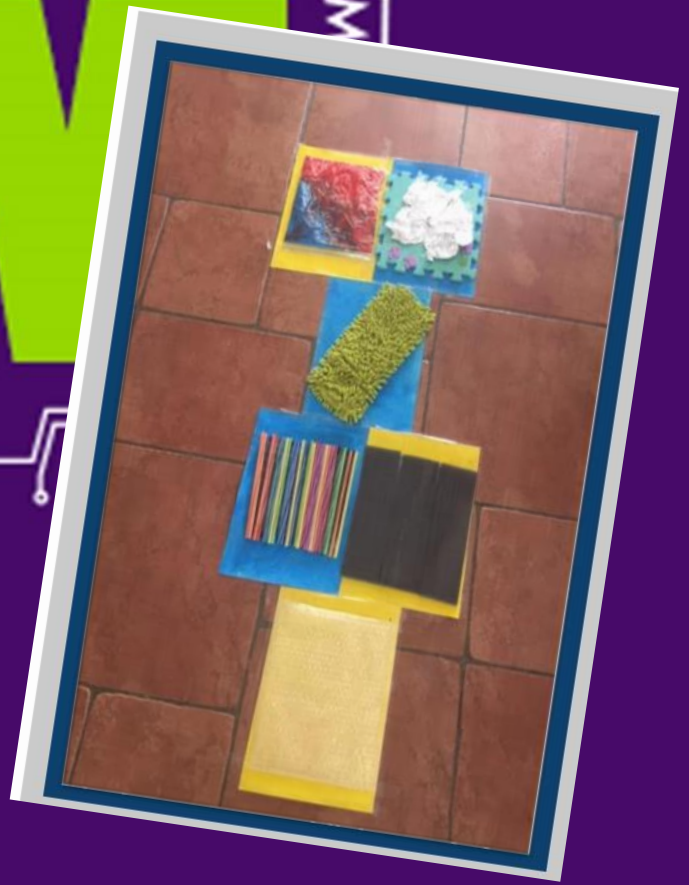
[Rube Goldberg Ideas]

Create a Working Zipline/Bridge- Pick two places/objects in your home and create a way to link them. Use a toy to test your zipline or how strong your bridge is.



Make a Sensory Hopscotch- What things will you use in a hopscotch to excite the senses?



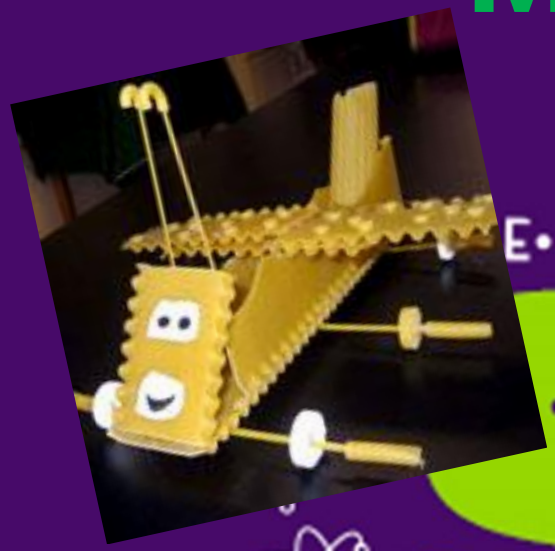


[Sensory Hopscotch Guide]

Design and Make a Raft- can you create something that can travel on water and support some weight?

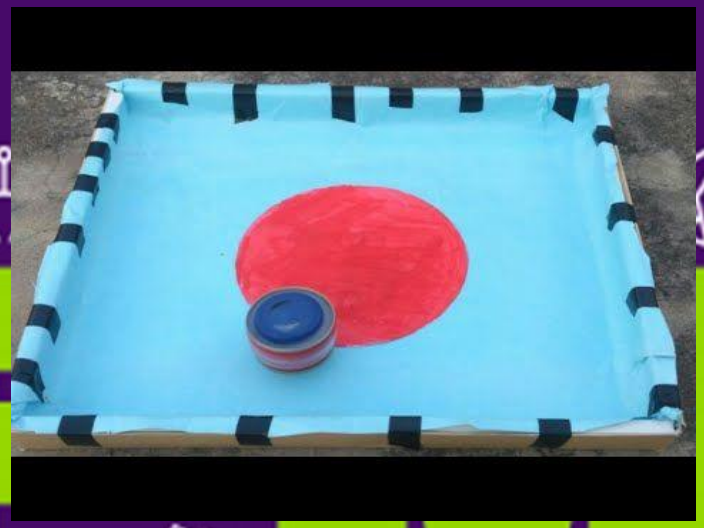
[Raft Making Cues]

Make a vehicle out of pasta.



Make some furniture for one of your dolls/teddies/action figures using paper or card.

Create a sports arena



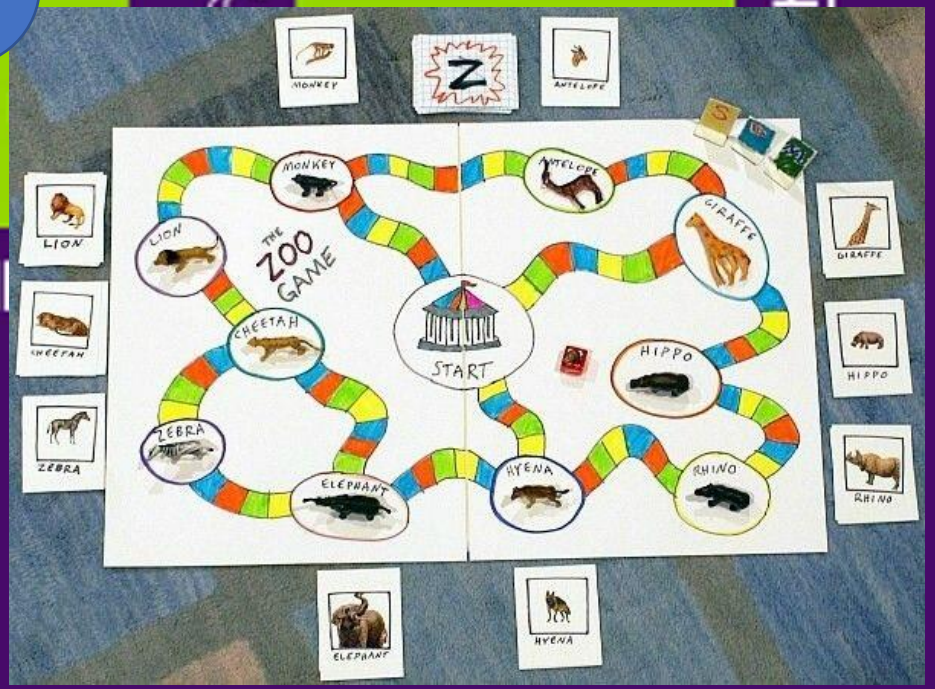
PDST Design Tips

Create a game

What will the rules be? Will my game have a winner?

Will I create my own board game?

Maybe I can use a spatula to make a racquet for my game?



Crazy Golf Tips

PDST Tips

Scientific Method

1. Ask a question- What is the purpose? What do you want to achieve.
2. Form a hypothesis-Make a guess/educated prediction how to answer your question.
3. Experiment- Make a plan and test it. This can be done more than once.
4. Observe and record- What did you see? Do you think you can change and improve something and need to do another test?
5. Draw conclusions- What does what you did and saw tell you?
6. Share your results with us at homelearning@firhouseetns.ie with STEM Challenge and your class in the subject bar.