

Open Day 2020

STEM Challenge: Popsicle Stick and Playdough Challenge

Term 3 STEM Activity

Year 1



Education



Melrose Park Public School

Learning and Growing together



Level 1: STEM Skills



Short focused tasks to develop basic skills and attitudes – for example:

- Collaborative group work
- Practical problem solving (trial and error)
- Specific knowledge & skills from construction tasks or digital technologies, such as...
 - Triangles give strength to structures
 - The weakest point in a bridge is usually in the middle
 - Different materials have different limitations
 - A planned sequence of instructions is needed to control a robot

HOW TO SET UP A LEVEL 1 STEM CHALLENGE



The STEM challenges in the following slides are

Level 1: STEM Skills, i.e. Short focused activities to gradually build skills needed to successfully engage with more complex tasks and projects.

1. Allow students 5 minutes to experiment with the materials and learn how these might be used together. This will help them make planning and then building decisions.

2. Don't give students the directions on how to complete the task.

Tell them the end result and give them the tools to succeed. They have to use problem solving skills as well as spatial reasoning to solve challenges.

3. Students can then independently sketch an idea for the structure OR the group talk about it and make decisions without independent sketches. As soon as groups have a plan they will start building.

4. Always finish with a reflection time:

What did I learn about working in a group?

What did I learn about inventing, building etc.?



S1 STEM Challenge with Popsicle Sticks and Playdough

Challenge

Can you work with your team to build the following?

Materials

Paddle pop sticks and playdough

Challenge Instructions

Challenge: Create the tallest 'freestanding tower'. Work together, be creative, and remember your tower has to be able to stand all by itself when you are done.

Collaborate with your team to plan and build your tower. Make sure you listen to everyone's ideas.

























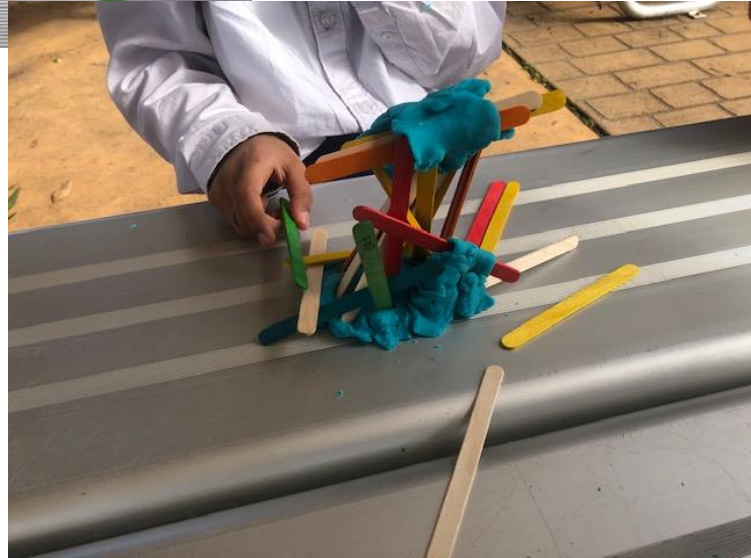
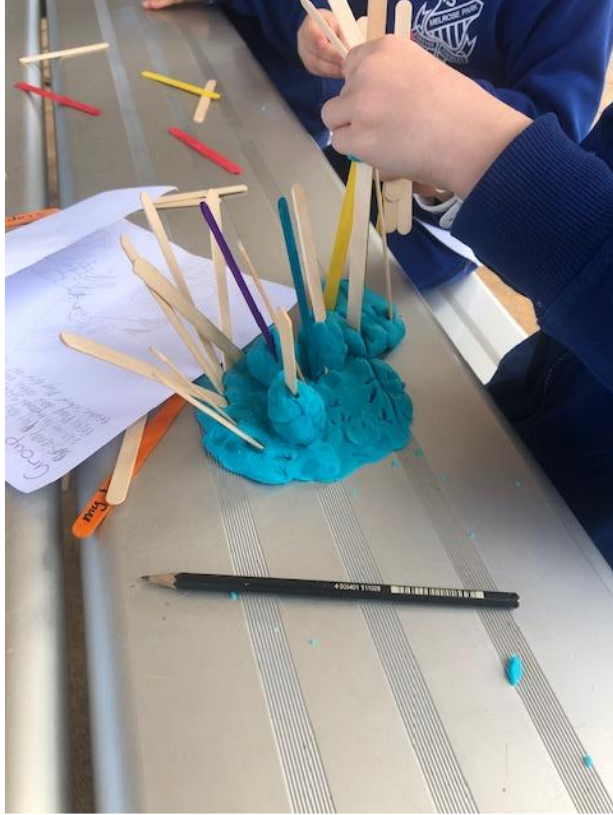


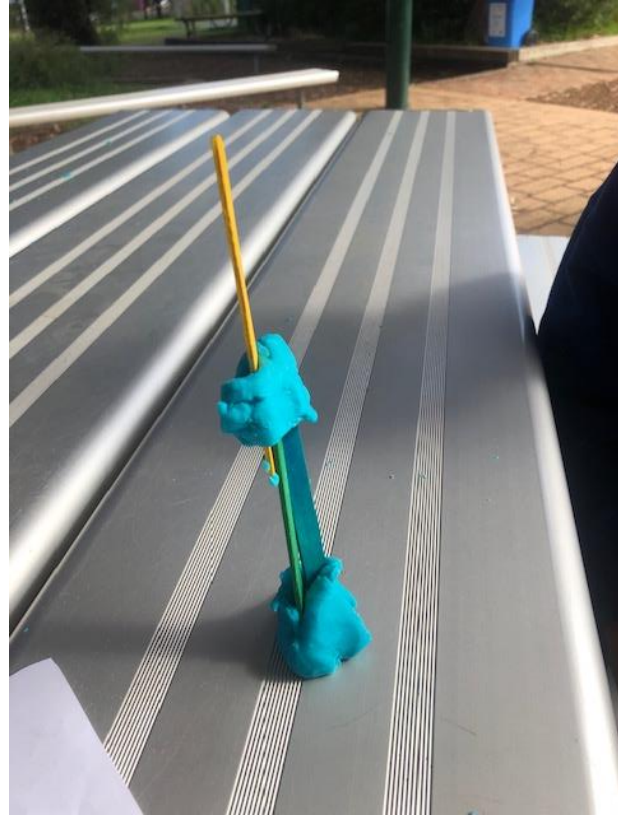


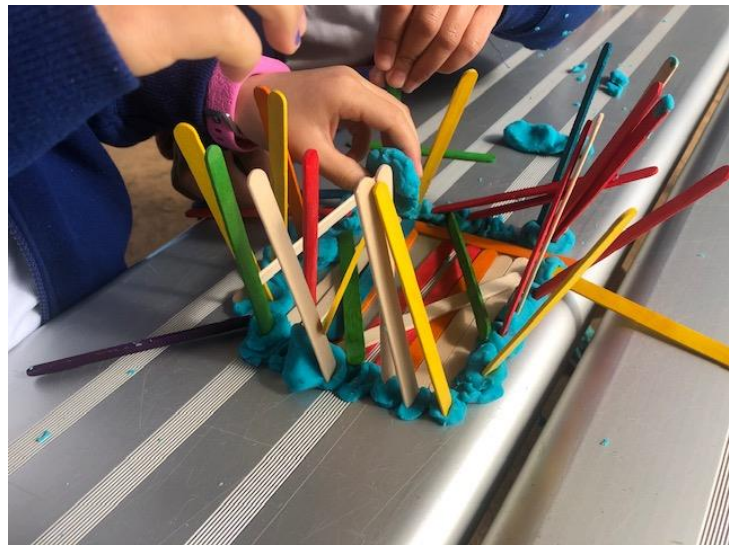
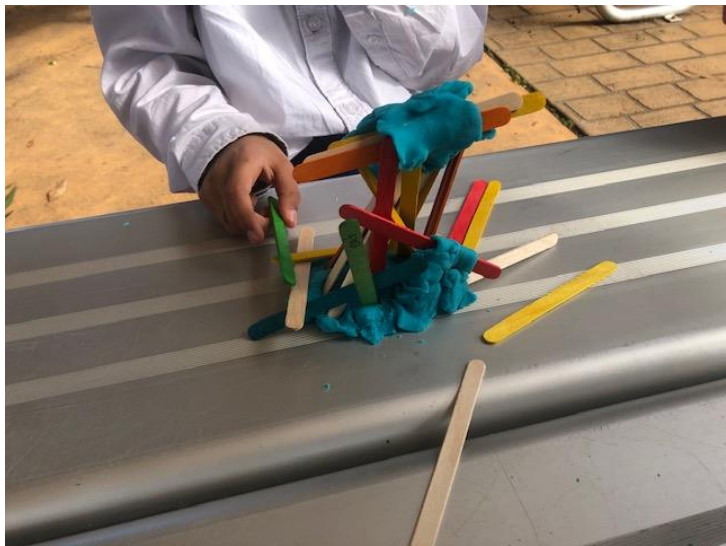












Together Everyone Achieves More!



Teamwork is when you work together with other people to do or make something. It is important to all work well together so that all of your strengths can go into what you are doing to do something great!

Listen to and respect the people in your group.

Cooperate together to make things easier.

Offer your own skills and ideas to the team.

Make rules so you all know what to do.



Communicate your ideas clearly to the group.

Be confident in the work you are doing.

All work together towards a common goal.

Support and help your team members.