Copacabana Public School STEM Scoop

Edition #1

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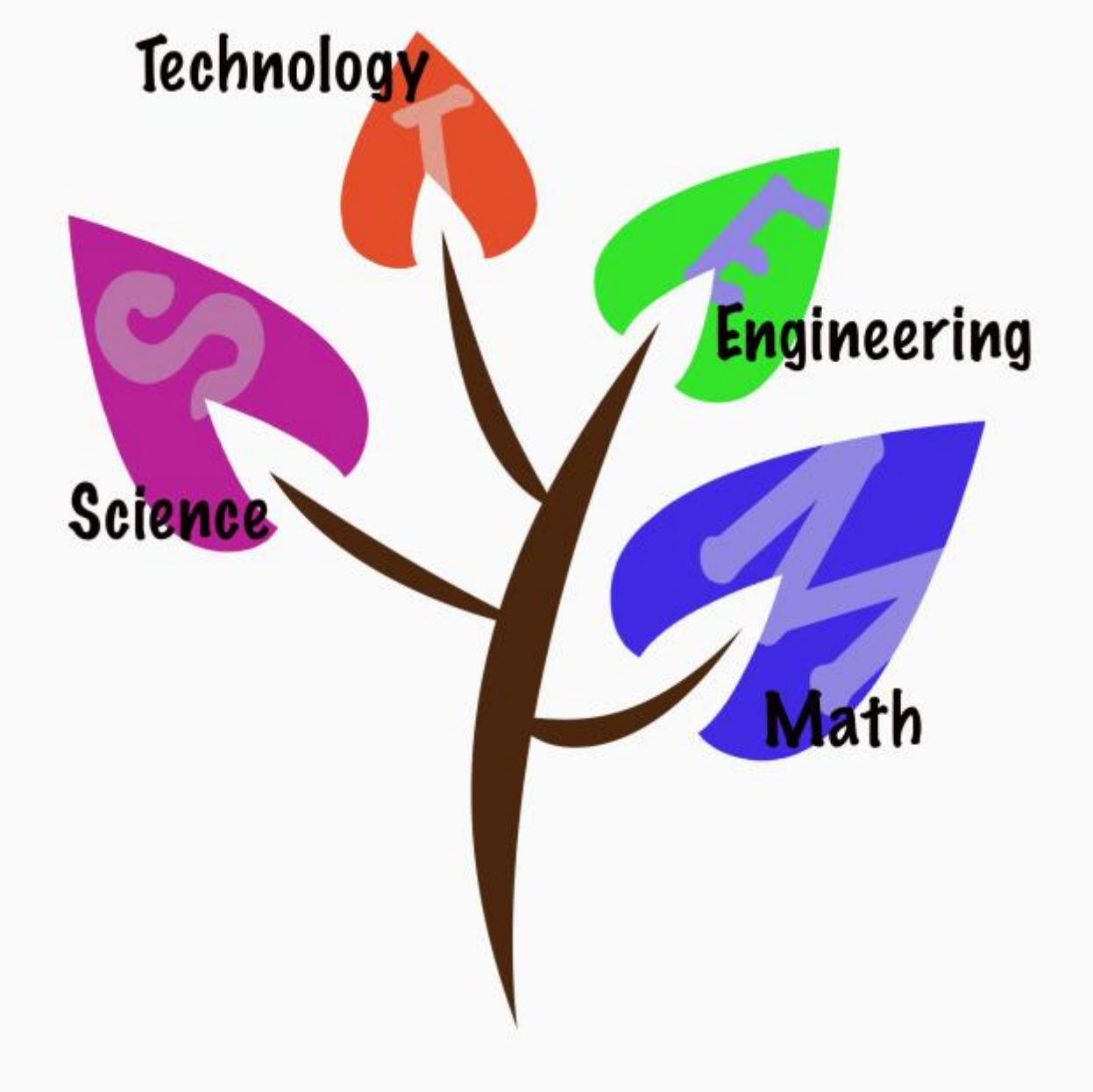
What is STEM?



STEM education:

- is an approach to teaching science and technology, and mathematics
- fosters inquiry learning in our complex world
- helps teachers guide students to apply their knowledge and understandings, inquire into their world, and solve complex, authentic problems involving contextually rich projects.

Through quality STEM programs, students from pre-school to Year 12 engage with their curriculum, acquiring skills that lay strong foundations for their career aspirations.

Aims

In NSW, we aim to :

- raise expectations and enhance the quality of student learning in STEM
- foster quality teaching and leadership in STEM
- provide innovative ways of delivering STEM education

Through Science, Technology, Engineering and Mathematics (STEM) we encourage students to:

- be confident in their ability to design and engineer creative solutions
- apply their understandings in mathematics, science and technology
- engage in collaborative teams
- take on more challenging STEM subjects.

Source - NSW Department of Education

Kindergarten


IGGY PECK ARCHITECT
by Andrea Beaty Illustrated by David Roberts
MAMAMISS.COM

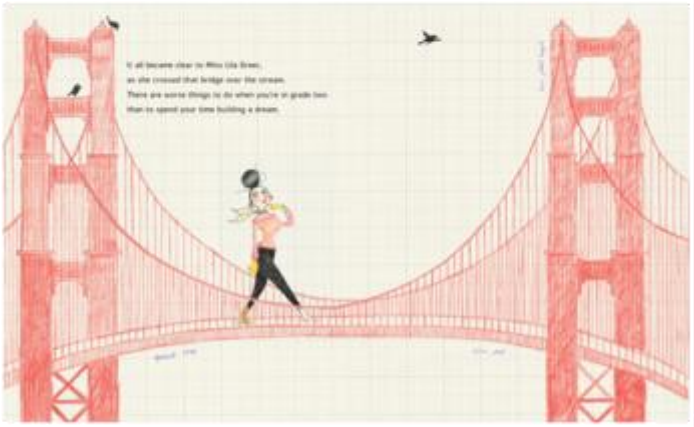
K/1W read the book Iggypeck Architect and then made some amazing bridges from Lego. They discovered that their bridges had to have a strong and sturdy base.

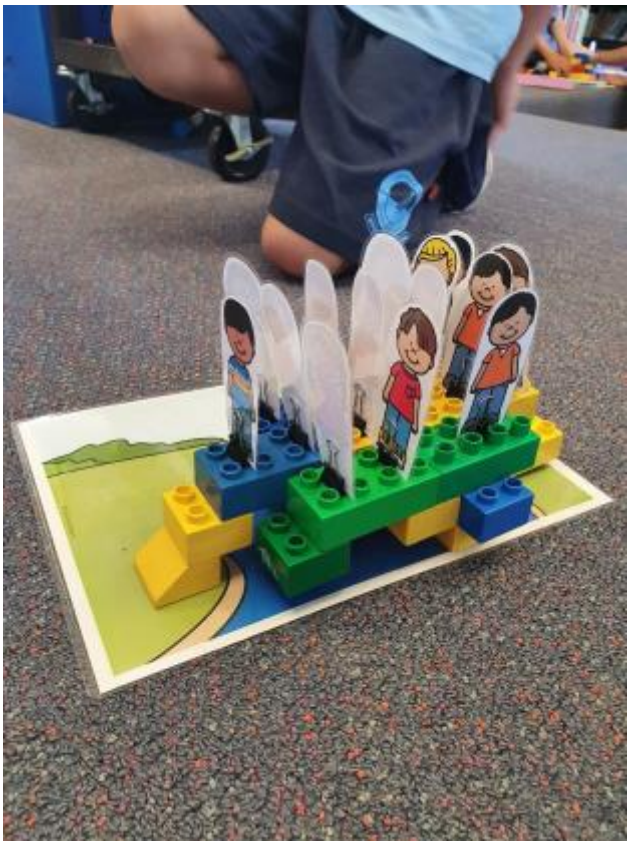
1 - The students used their imaginations to create some great structures.

"Young Iggy Peck is an architect and has been since he was two, when he built a great tower—in only an hour—with nothing but diapers and glue."

"When Iggy was three, his parents could see his unusual passion would stay. He built churches and chapels from peaches and apples and temples from modeling clay."

"It all became clear to Miss Lila Greer as she crossed that bridge over the stream. There are worse things to do—when you're in grade two—than to spend your time building a dream."





Camouflaging Chameleons

K/1W then studied to story of a chameleon who wanted to find his colour like all the other animals. He soon discovered how special he was because he could camouflage so well.


PICK UP
YOUR
RESERVED
BOOKS HERE!
Stage 1

Stage 1

Stage 1 this term had a lot of fun studying Iggypeck Architect too and creating some fabulous bridges. They also discovered the importance of working well in a group.


PLAN

Camouflaging Chameleons

Their camouflaging chameleons were also well thought out and presented. Their discussions about warm and cool colours were very interesting too.

Cardboard Parks

We moved onto some construction activities in the last few weeks and the students were able to show off their amazing engineering, creative and building skills. Their cardboard park creations were fabulous and each student was so proud to take theirs home.


P/O NUMBER: PO-21339
CARTON DIMENSION


Weet-Bix
BITES
CRUNCHY HONEY


Jack's
Park

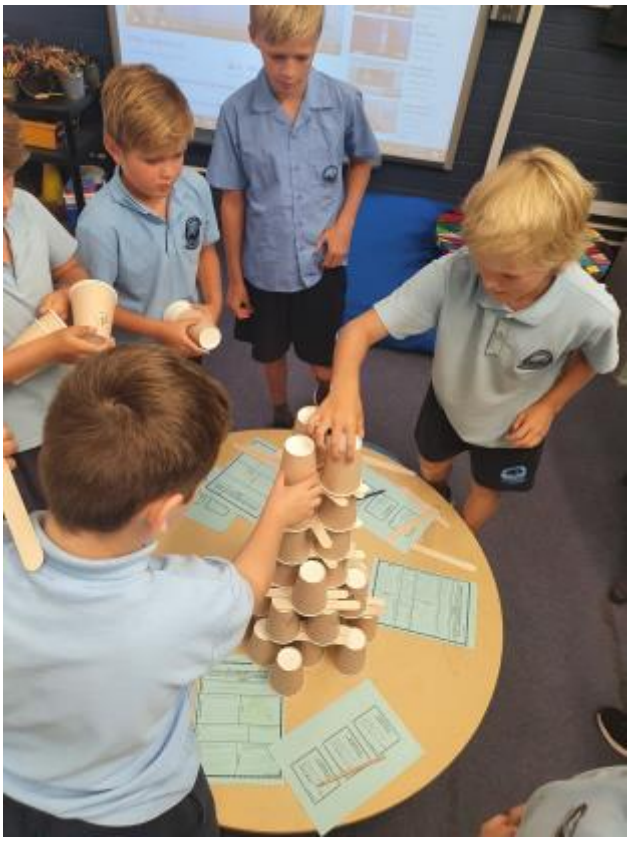
Stage 1 also really enjoyed coding the Beebots and Caterpillars. The created some fun mazes for their friends to attempt.

Stage 2

This term's Stage 2 group worked very hard during STEM and creating some brilliant structures. They also investigated the various roles that people who enjoy STEM can do. Having parameters to make challenges meant that the students were able to think creatively and critically with their designs.

Cup & Stick Towers


We Are
Learning To
What I'm
Looking For



Super Straws

Stage 2 learnt about air pressure and created some excellent super straws.

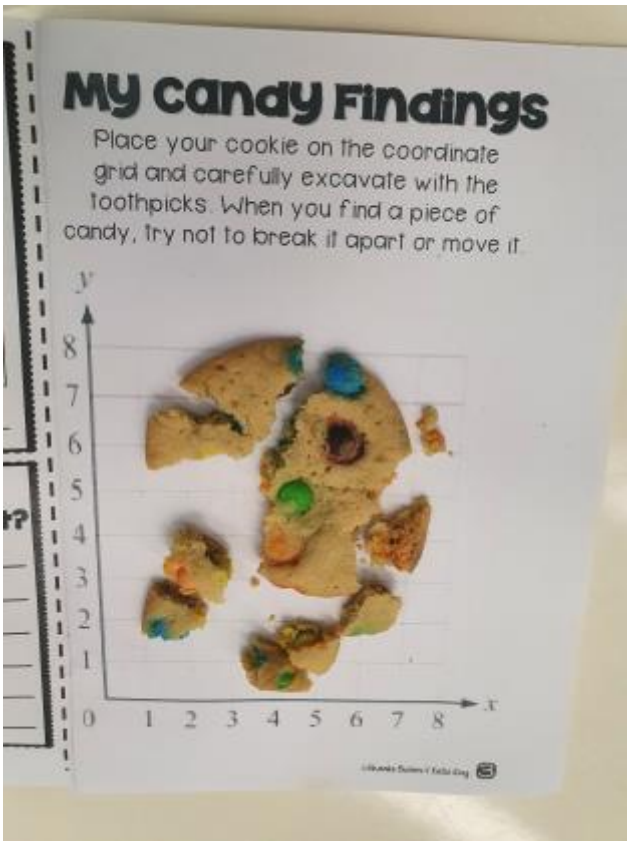
Cookie Excavators

Mrs Mumford baked all the students a cookie and they had so much fun excavating all the M&Ms out using only toothpicks. The students learnt the complexities of being archeologists and how carefully each M&M had to be extracted.


Candy Values
My candy findings


Candy values
My candy findings


My candy findings
Candy values


My Candy Findings
Place your cookie on the coordinate grid and carefully excavate with the toothpicks. When you find a piece of candy, try not to break it apart or move it.
y
8
7
6
5
4
3
2
1
0
1 2 3 4 5 6 7 8
x

Stage 3

Stage 3 were exposed to the many elements of STEM and many of the students have found some excitement within the elements of STEM.

Cup & Stick Towers

Stage 3 did a brilliant job with their cup towers and learnt the value of teamwork, as well as patience! The parameters that were set, meant that the students had to think carefully about their designs in order to make them stable enough.

Cookie Excavation

Our Stage 3 cookie excavators did an excellent job, ensuring that none of their M&Ms were broken. Being able to eat their crumbled cookies at the end was also a highlight!

Egg Carton Self Portaits

Stage 3 became creators and artists. Their egg carton self portraits are a fun portrayal of all the different students.

Paper Chains

What appeared to be a simple final STEM challenge for Term 1, ended up being the trickiest of the term! The students were given two pieces of paper, one pair of scissors and 24cm of masking tape and needed to create the longest paper chain in 30 minutes. Teamwork and careful planning was key to this challenge! Some chains reached over five metres which was amazing!


Learning Intention
Success Criteria

What a wonderful first term of STEM it has been. We hope the students have learnt lots and had lots of fun!

Until next time in STEM.

Mrs. Mumford & Mrs. Johnson