

15 July 2022

Dear Parents and Parent Liaisons,

RE: Steam Show 2022

This year on **Tuesday August the 30** we will be holding our Annual STEAM show. This is where we showcase the individual and collaborative artwork of every child in the Primary School from Prep to Year 6. This year we will all be inviting students to submit STEM work for display as well.

STEM stands for Science, Technology, Engineering and Mathematics. The 'A' in STEAM adds in the Arts. STEM education focuses on problem solving using the STEM subjects and students love working together and by themselves to find out ways to design, build and create various devices using everyday materials. As they are doing this, they are exploring the laws of physics, using maths, technology and science skills and using trial and error to achieve a positive result.

Every child in the primary school has the opportunity to contribute something that they design, create, make or build at home and show it to a wide audience. While the Art will be taken care of at school, the STEM can be a home-based activity...and it is NOT compulsory. If you have ever seen the Science Fair type of projects that many American schools hold, it might give you an idea ...but it is not limited to just that. Do you have a child who is enthusiastic about Technology or Science? Is your house full of Lego? Are you asked 1000 questions everyday about 'why does...'? If so, then encourage them to enter a model, a project, an investigation, a design, or something else in the STEAM show.

There are lots of ideas overleaf and we are happy to answer questions if children (or parents) wish to contact us.

All forms must be returned by **Tuesday 9 August** so we know how much space we need for display and can plan accordingly. All entries need to be completed and brought to school by on **Friday 26 August** so there is PLENTY OF TIME to set up. The STEAM show is on **Tuesday 30 August** in the Andrianakos Centre and starting time will be sent home closer to the date.

We hope as many students as possible are inspired to enter a project. Project boards can be supplied on request.

Yours Sincerely,



Tracey Nicholson
Assistant Principal, Head of Primary



Dianne Downey
Primary Numeracy, ICT/ASPIRE

STEAM Show 2022

Some ideas to inspire you

Ideas for the Science in S.T.E.M.

- What effects plant growth?...Grow a plant in different conditions (light/ dark)
- How do plants get water?...capillary action
- What solids float?.....sorting and recording
- Does music influence plant growth?
- How long does it take for a piece of fruit to go bad?
- What are crystals made of?
- What factors have an effect on scoring a goal in soccer/basketball?
- How much water do you save by turning off the tap when you brush your teeth?
- How many bones in the human body?
- How good is your pet's memory?
- What is a zoetrope? (Model Making)
- What is a stethoscope? (Model making)
- What is an earthquake?
- What is a volcano?
- Which soft drink blows up balloons the best?
- What are fossils?
- What is the solar system?
- What is a prism?
- Which battery brand lasts the longest?
- How do you make lip balm/perfume?

Ideas for the Technology in S.T.E.M.

- Which brand of paper towel absorbs the most water?
- What type of ball bounces highest?
- How does a string phone work?
- How can you launch an egg and not break it?
- How do bicycle gears work?
- What can you build out of 2 newspaper and masking tape?
- What fabrics work well as parachutes?
- How do you make cheese?
- How do you make play dough?
- How many colours/shades can you make from 3 paints?
- How does a camera work?
- How can I make something to sort objects of different sizes?
- How can you make invisible ink?
- Design and build original Lego model
- Can you make a slinky from post it notes?
- How does a catapult work?
- Can I make a musical instrument?
- How does greenscreen work?
- What is a sundial?
- Does soft drink corrode metal?

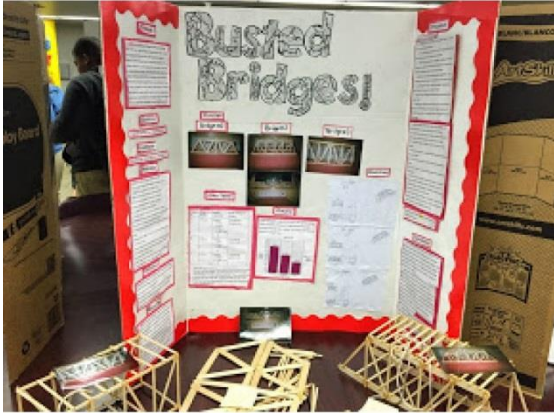
Ideas for the Engineering in S.T.E.M.

- How much weight can a straw/popstick/lego bridge hold?
- Which bridge design works the best (using same material)
- Can I make simple gears?
- What is the best paper plane design?
- How were the pyramids built?
- How are buildings designed to withstand earthquakes?
- Which surface is smoothest for toy cars?

Ideas for the Mathematics in S.T.E.M.

- How many seeds in an apple? (data)
- What food do people like the best? (data)
- Which brand of ___ do people prefer (blind test, data)
- What type of ball bounces highest? (data)
- Is 13 really a lucky number (Chance)
- What is an optical illusion?
- What does your family tree look like? (data)
- What shapes stack together well?
- What is a tessellation?
- What is the golden ratio?
- How many different colours are in your garden?(data)
- What tastes best...homebrand or name brand (data)
- Which brand of popcorn pops the best?

Some examples of displays...yours doesn't have to be elaborate...it can be quite simple with a sign.



This is a project about bridge building by a year 6 student...he has included his designs and models.



This display is the much loved vinegar and bi-carb soda volcano.



Flowers and coloured water showing capillary action



Paper Plane testing

These are just a few ideas...the possibilities are endless!

You don't have to use a board or sign like the ones in these examples, but if you do want a board see Mrs Downey.

ALPHINGTON GRAMMAR SCHOOL STEAM Show 2022 RETURN SLIP

Student Name: _____

Class: _____

My idea for a project or display:

How much space will you need for your display?

Draw a sketch of what you think your display MIGHT look like

Please return this form to Mrs Nicholson or Mrs Downey by Tuesday, 9 August.

Your display has to be ready and at school by Friday, 26 August

Parent signature _____ Date _____