



# Stemazing Inspiration Academy

STEM is the combination of Science, Technology, Engineering and Maths. STEM actively promotes a young person's curiosity, creativity and courage. Not enough children have the opportunity to explore and engage in STEM activities. We want to change that.

Join the STEMazing Inspiration Academy - a FREE programme of four LIVE online STEM sessions designed to engage and inspire children aged 7 - 9 years. Each week the children take part in a 30-40 min activity over Zoom using basic resources. All sessions are delivered by women in STEM to showcase female role models and support changing outdated perceptions of what a scientist, technologist or engineer looks like.



### Engage

Sessions are live, interactive and designed to be simple and fun to do over Zoom.



### Reward

Children create their own STEM masterpiece each week and receive electronic certificates.



### Inspire

Dedicated to inspiration and impact. All sessions are run by inspiring female STEM role models.

Proudly sponsored by World Refrigeration Day



June 26<sup>th</sup> every year

# INSPIRATION ACADEMY MAY 2022 PROGRAMME

## WHAT?

- Each session is a 30–40 min interactive activity. The children follow along live to simple step-by-step instructions led by your StemazingWomen Role Model via Zoom.
- It is possible for more than one class to participate at the same time if the children are a similar ability.
- All sessions require at least one adult who is responsible for the children to be present with them in person.
- All sessions are designed to be simple and fun. Depending on the ability of the children, they may need help and support with certain steps in the activities.
- The full list of resources needed for the activities is listed below. Some activities may be done in pairs/small groups to share resources.
- For your information so you have an idea what to expect - an overview of each activity, resources list and key risks to be aware are shown below. Your StemazingWoman will provide more information before each session.
- In all our sessions we also aim to reinforce the Stemazing 3Cs - Curiosity, Creativity, Courage. We aim to inspire the children to be curious about the World around them, be creative with their unique designs and ideas, and be courageous by trying things even if they seem hard.
- It's ideal if your StemazingWoman can see some of the children on camera to know how they are getting on for pace. None of the sessions will be recorded. If this is not possible, the teacher will need to provide audio feedback for pace.

## WHEN?

- The 4-week programme will be delivered in May 2022.
- There is some flexibility in this programme if these dates do not suit your school.
- Your StemazingWomen Role Model will be in touch to arrange exact dates for the sessions.

## WHERE?

- All sessions will be delivered remotely using Zoom. So you need an internet connection and devices or screen for the children to watch, plus ideally one device with a camera feed showing the children to gauge pace and for interaction.
- These sessions can be run as an after-school club, or run at a time to suit the school in the day so the class can do the session together.
- You can agree the best time to run the live sessions with your assigned StemazingWomen Role Model in advance.



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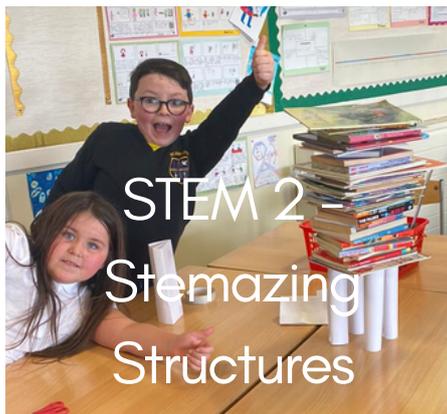
Exploring forces and the Laws of Motion. This is important for engineers when they are designing anything - from cars to space rockets!

### Resources per child

- Print Rockets template / or draw your own
- A Straw
- Colouring pens
- Scissors
- Sellotape

### Risks

- Using scissors
- Paper cuts



Exploring the importance of shape in design. This is important in the World around us as different shapes have different properties which can do different things for us.

Best if the children to work in pairs for this one to share books and sellotape.

### Resources per pair

- 8 sheets of A4 paper
- Sellotape
- Big pile of books

### Risks

- Paper cuts
- Pile of books getting too high and toppling over onto child



Engineers and scientists can harness energy to help make our lives better. Here we do a simple experiment to explore energy and energy transfer by launching projectiles to show how we can convert stored energy into movement energy.

### Resources per child

- Short cardboard tube
- Balloon
- Paper
- Projectiles (mini marshmallow)
- Scissors & Sellotape
- Colouring pens

### Risks

- Using scissors
- Paper cuts
- Projectile damage



Understanding density is important for scientists and engineers when they work with any solid, liquid or gas. We are going to explore density and get creative with chemistry by making our own lava lamp. Best done in pairs and agree with StemazingWoman how to run this to mitigate mess in the classroom.

### Resources per pair

- Tall and slim glass or 100ml measuring cylinder
- Small Jug of water
- Vegetable oil (100ml)
- Food colouring
- Alka Seltzer tablet
- Table template
- Different items to test the density of that will fit in the vessel such as mini marshmallow, small leaf, coin, screwed up paper
- Mixing bowl to empty waste liquids into

### Risks

- Pour carefully - beware of spills
- Don't eat fizzy tablet
- Wash hands after handling oil.

