LEARNING RESOURCE

STEAM RESOURCES

PAINT ROCKET ARTWORK

INTRODUCTION

STEAM is an acronym meaning that all the letters of the word stand for a different subject area, these subjects are Science, Technology, Engineering, Art and Maths! Here at the STEM Discovery Centre we love to combine all these subjects to make beautiful works of art. 'Let off STEAM' and explore your creative side!

MATERIALS

- Paint (fabric, acrylic or poster in many different colours if you wish)
- A piece of fabric, paper, or cardboard to decorate
- A pipette or another measuring device
- A film cannister or another small pot with a push lid (a screw top will not be suitable)
- Alka seltzer tablet(s) or another soluble or effervescent product, such as aspirin
- A flat surface in an outdoor space

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INSTRUCTIONS

1. Add water to a sample of your paint at a ratio of approximately 1:3 (paint to water).

2. Using the pipette add approximately 6mls of watered down paint into your film cannister.

3. Take a quarter of the alka seltzer tablet and crush into small pieces. Collect these small pieces into the lid of your pot.

4. When ready countdown from 5….4….3…..2….1! On 1 add the tablet to the paint in the film cannister and push the lid on tightly, place the cannister lid facing downwards on top of your piece of fabric or paper laid out on a hard, flat surface.

5. Take a big step back and wait!

THE SCIENCE BEHIND THE ROCKET

Alka Seltzer tablets are EFFERVESCENT, this means that when added to water they create a gas (Carbon Dioxide in this case). Gas molecules are a bit like small children after eating sweets – they need lots of space to run around! When we close the lid on our cannister we trap the gas molecules inside and they really, really want to escape! The only way out is by pushing the lid of the cannister down (this is the ACTION) the REACTION is the pot and paint flying upwards! As well as being a great example of a chemical reaction this activity is also a perfect example of Newtons Third law of motion which states that 'Every action has an equal and opposite reaction'.