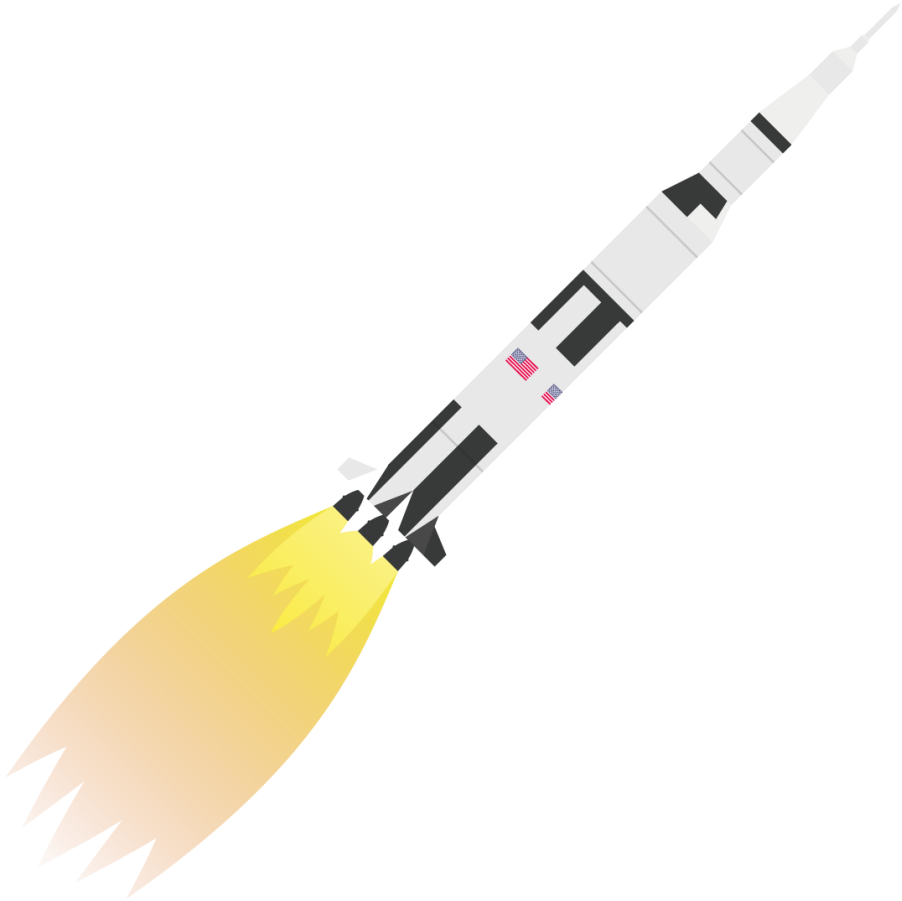
EUREKA!

the national children's museum

Mission Control



Information for KS1 teachers and group leaders

Workshop synopsis.

Your pupils will become rocket engineers in this brand new hands-on workshop inspired by the Apollo 11 mission to the Moon. Working scientifically, pupils will identify the best fuel to use before putting their rockets to test in a live launch! Children will gain an understanding of the science behind how rockets work and the different substances that produce chemical reactions – as well as how to work effectively as a team.

Is there anything I need to do to prepare the children before the visit?

There are no essential pre-visit activities which you need to complete beforehand but if you're not currently doing anything on space or the moon landings in class, it might be useful to gently introduce the topic before you come to Eureka! so the children are a little more familiar. Useful websites:

www.google.co.uk/moon You can use Google Moon to explore the Moon's surface and to find the six marked Apollo landing sites. Zoom in closer to see each landing site in detail.

http://www.esero.org.uk/ ESERO-UK, also known as the UK Space Education Office, aims to promote the use of space to enhance and support the teaching and learning of Science, Technology, Engineering and Mathematics (STEM) in schools and colleges throughout the UK.

http://www.destinationspace.uk/ Eureka! is pleased to be part of this national programme which aims to engage, inspire and involve families, schools and communities across the UK with the amazing stories and innovative science and engineering of the UK's world-leading space sector.

Risk assessment

- Please visit our website https://www.eureka.org.uk/education/resources/ to download both the general museum risk assessment and the one for your chosen session.
- We advise you to make a preview visit to carry out your own risk assessment for the overall visit.

Evaluation

Eureka! constantly aims to improve its programmes for school groups and feedback from adults and children is an essential part of this. We value all comments made and will always try our best to act upon them. An evaluation form will be given to you at the end of your session and we ask that you complete and return to us as soon as possible. A copy of the evaluation form is also included in this pack should you wish to complete and return to us via email.

Follow up activity

We use Alka seltzer rockets in this workshop which can easily be replicated back in the classroom, just Google 'alka seltzer rockets' and you'll find plenty of videos and lesson plans. At the end of the session you will be given a rocket template which can be photocopied so that each pupil can design their own rocket case to go over the film canister rocket – these can be bought quite cheaply online.

Additional resources & information

The following pages contain various supporting resources and information related to the science show.

Please find the following documents in this pack:

- **National Curriculum links –** *showing how the workshop fits in with the national curriculum for science.*
- **Teacher's assessment chart** - *this outlines the aims and objectives of the show, including the key activities which children will be taking part in and their learning outcomes.*
- ***Evaluation form** – a copy of the form which will be handed to you at the end of your session.*

Mission Control: KS1 Workshop
Primary Science National Curriculum links

Year	Programme of study	Links to:
KS1	Working scientifically	• Observing closely, using simple equipment • Performing simple tests • Identifying and classifying • Using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions • Gathering and recording data to help in answering questions

Mission Control: KS1 Workshop
Teacher assessment chart

Aims and objectives – by the end of this workshop children should have learned:

- About the Apollo missions and how man first landed on the Moon
- About the basic science behind how rockets work
- That different substances produce chemical reactions
- How to work effectively as a team to complete set tasks

Overview: Pupils will become 'rocket engineers' to test and identify the best fuel for blasting a rocket and find out more about the Apollo missions and how man landed on the Moon.

Activities	Learning Outcomes
Using powerpoint presentation and video, pupils will be introduced to the session and given a brief history of the Apollo missions.	*To learn the names of the 3 astronauts of the Apollo 11 mission.* *To understand that this wasn't the only mission to the Moon and that only 12 people have ever walked on it.*
How do rockets work? – a discussion and demo to show the basic science behind how rockets work	*To understand that the Moon is actually quite far away from the Earth* *That the rocket used in the Apollo missions was called the Saturn V and was taller than Big Ben* *To learn about the fire triangle and that you need all 3 parts to produce a fire reaction*
The experiment – working in small groups children will carry out a fair test on 3 different liquids to see which produces the best reaction i.e. the longest and strongest fizz.	*To work effectively as a team to complete set tasks* *To understand the importance of fair testing*
The launch – an instructor will launch one rocket per team using their chosen fuel *(this will take place outside, weather depending)*	*To compare the effectiveness of the chosen fuel by observing each launch and discussing the results as a group afterwards*

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Mission Control
Teacher Evaluation

Date of visit	*School name*	*Year Group*

1. Was this your first school visit to Eureka!? *(please circle)* Yes No

2. Was the workshop the main reason you decided to make a school booking? Yes No

3. How did you find out about the workshop? (please tick)

❑ Eureka! Email ❑ Eureka! Website ❑ Social Media ❑ Word of Mouth ❑ Other

Other, please state __ _____

4. Measuring impact - Please read the following statements and tick the option which most applies to you.

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Impact on my class					
I feel this visit inspired my class					
My class learnt something new about Science					
I feel my class will be more interested in Science than before they came					
Eureka! is a good place to learn about science in a different way to school					
About Me					
I discovered something new during my visit					
The visit made me feel more confident about ***supporting my class*** in learning about Science					
The visit made ***me*** feel more confident about science					
I would recommend a visit to other teachers					

5. What do you feel were the highlights of the session?

_____

_____

6. Is there anything we could have done to improve the session?

_____

_____

7. Would you consider attending another science session at Eureka!? *(please circle)*

Yes No

If NO would you like to tell us why not?

_____

P.T.O →

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8. Is there anything else you would like to tell us either about the session or any other aspects of your visit?

_____

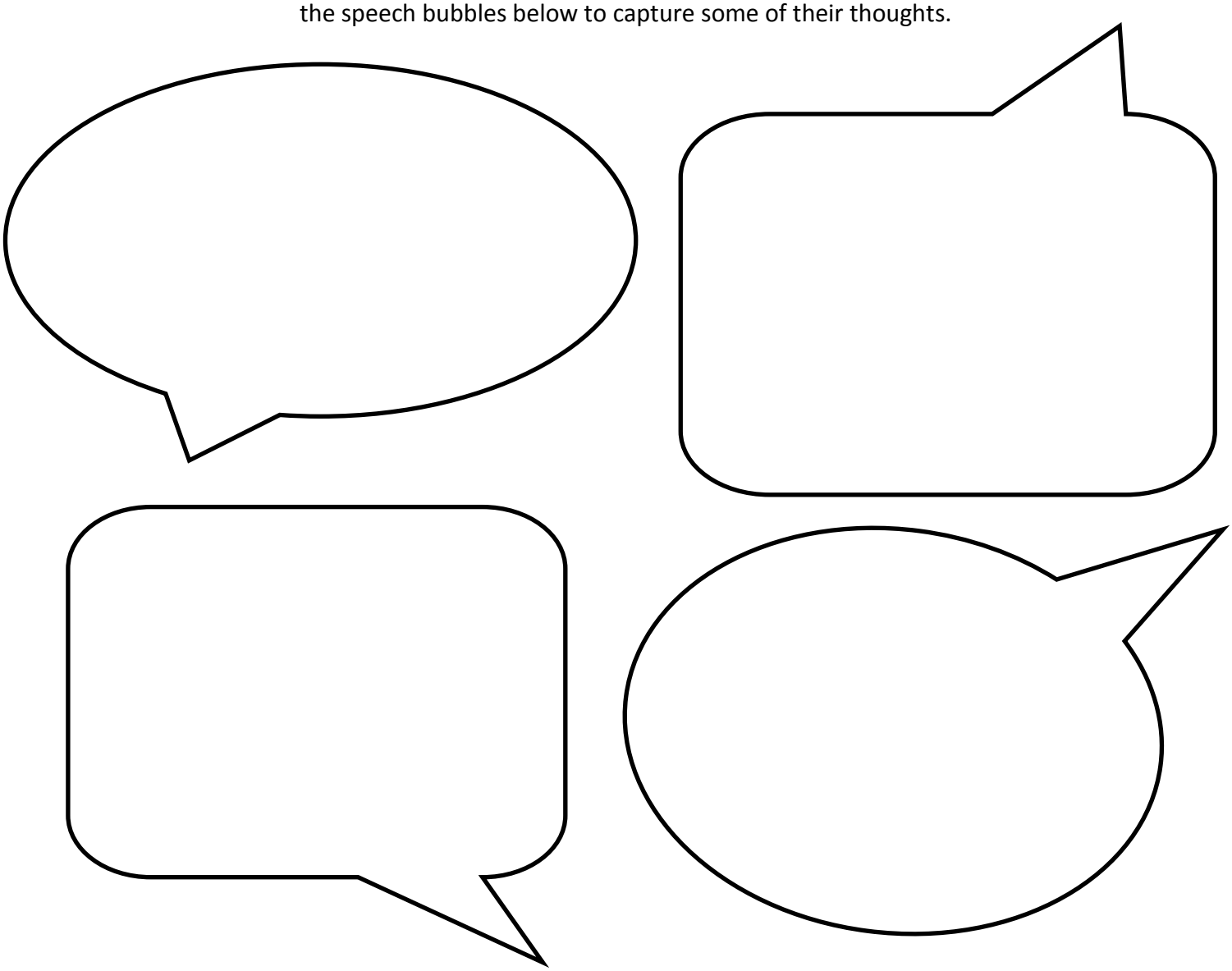
_____

_____

_____

_____

We'd love to hear what the children thought about the session too. As a follow-up activity the day after why not ask the children what they can remember about it and their visit to Eureka! and use the speech bubbles below to capture some of their thoughts.



Thank you for your comments.

Please return to**:** **Jenny Parker, Play & Learning Manager,** Eureka! The National Children's Museum, Discovery Road, Halifax, West Yorkshire, HX1 2NE, jenny.parker@eureka.org.uk

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