

## Support Resources

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Llywodraeth Cymru  
Welsh Government

### Show Summary

Delyth the dragon has always wanted to go into space. With her one week's holiday, help her decide where in the solar system she can go. Then step into Techniquest's planetarium and watch as it is magically transformed into a space shuttle. Blast off with Delyth on an adventure that explores the Earth and its place in the solar system, the sun, the moon and what we need to pack for our space holiday.

This show explores space through story telling and interactive activities in Techniquest's planetarium and introduces pupils to the stars they may see in the night sky.



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### Acknowledgements

Special thanks to the Welsh Government for its support. Thanks to the pupils and teachers of Trowbridge Primary School, Millbank Primary School and Gladstone Primary School for their support and ideas.

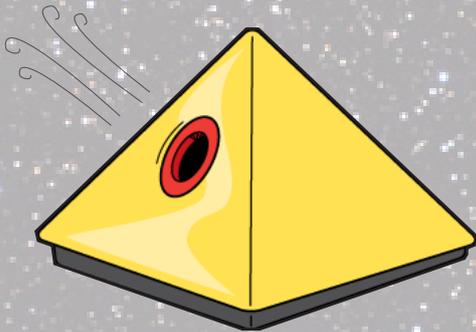
### Using Your Photos

Working in groups, ask pupils to select one photograph from those taken of them during their visit. Pupils should present their chosen photograph to the class and describe what is happening in the photograph. Use these questions to get more information from the pupils.

- Who is in this photograph?
- What is this a photograph of?
- Why have you chosen this photograph?
- Has anyone found something similar in another photograph?
- What did you enjoy about this exhibit?
- Does this exhibit have anything to do with the show you saw? What?
- What else did you see at Techniquest?
- What did you learn from your visit?
- What was your favourite part of the visit? Why?



### Exhibit Trail



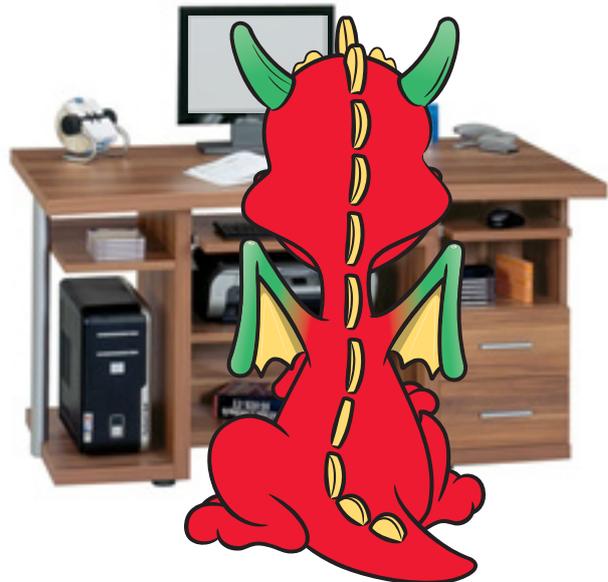
In each of the following photographs, Delyth is asking a question related to the show or the exhibit.

- Set pupils the challenge of answering the questions.
- Ask pupils if they used the exhibit in the photograph during their visit. What did they find out about it?
- What other exhibits did they find that were related to the show? What did they find out from exploring these?
- Pupils could draw a picture of their favourite exhibit. They could add thought bubbles, like on the photographs of Delyth, to explain why they liked it.

Pupils can email their thoughts, comments and pictures about their time in Techniquest to:

**[DelythDragon@techniquest.org](mailto:DelythDragon@techniquest.org)**

Delyth will choose her favourite emails and photographs and these will be displayed in Techniquest. Look out for them next time you visit.



# BLAST OFF!

TECHNIQUEST

What does this look like? What happens when it spins?

Try this

## Orb

- Spin the planet, and then stop it, and watch the atmosphere!

The exhibit has a layer of fluid between two domes. Shiny crystals in the fluid show the lines of flow.

When it has been set spinning, the fluid shows the bands and whirlwinds which can be seen in the atmosphere of the planet Jupiter.

What's happening

TECHNIQUEST  
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What patterns do the balls make as they travel? Where do they go?

A red and green plush dragon is looking at a globe of Earth. The globe shows the continents of North America, South America, and Europe. The dragon has a red body and green horns. A speech bubble is next to the dragon's head.

Which planet is this?  
Where is Wales?

# BLAST OFF!

## TECHNIQUEST

How can I make the rocket fire?



**Hydrogen Rocket**  
Turn the handle to make the fuel.  
Watch the fuel gauge.  
Press red FIRE button when it lights up.  
**Roced Hydrogen**  
Trowch y ddolen i wneud y tanwydd.  
Edrychwch ar y mesurydd tanwydd.  
Pwyswch y botwm TANIO coch pan mae'n goleuo.



**FUEL GAUGE**  
**MESURYDD TANWYDD**



**TANIO**

You are producing electricity which breaks up  
and oxygen gases. FIRE the gases are mixed and  
When you press FIRE the gases are mixed and  
the fuel used in several types of space rocket.

Rydych yn cyhyrchu trydan sy'n creu rwyon hydrogen  
allan o'r hylid.  
Pan fyddwch yn pwysio'r botwm TANIO mae'r rwyon  
tu meor i'r rocod ac mae'r rocodion yn gwead y go  
ydw'r tanwydd a gaffi'n ddefnyddio mewn sawl math

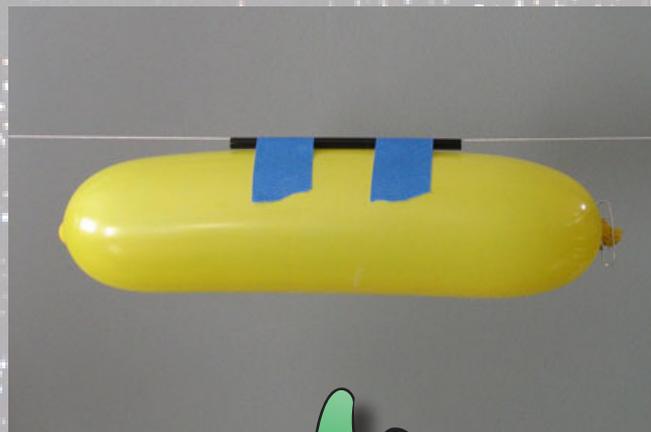
### Rocket Races

#### What you need:

- Balloons of different shapes and sizes
- Drinking straws
- Plasticine
- Masking tape
- Duct tape
- Measuring tape
- Scissors
- String

#### What you do:

- Can pupils make a rocket? How far can they get it to travel?
- Attach a piece of string from one side of the classroom to the other. Tie the one end of the string securely. Leave the other untied.
- Split the pupils into pairs.
- Hand each pair a selection of balloons, some plasticine, a piece of straw and some masking tape.
- Pupils can choose whichever balloon they would like to make their rocket. They should then stick the straw lengthways along the balloon using the masking tape. Pupils can add plasticine wherever they wish on the balloon for weight. They may not choose to add any.
- Pupils should then test their rockets. The loose end of the string should be fed through the straw and the balloon blown up. The teacher should hold the end of the balloon closed. They should then pull the string tight and let go of the balloon.
- The balloon will travel along the string. Pupils can use the measuring tape to measure how far the balloons travelled.
- Pupils can be challenged to test other shaped and sized balloons.



Challenge pupils to answer the following:

- Which balloons travelled the furthest?
- Why was this?
- What made the balloons move?
- How could you make your rocket travel faster along the string?
- What happened when you added plasticine to your balloon?
- Can you race two rockets? What do you need to do to set this up? What equipment do you need?

### Naming Planets

- Can you name any of the planets? Find out the names of these planets in Welsh.
- Now find out the names of the days of the week in Welsh.
- You could use: [bbc.co.uk/learnwelsh](http://bbc.co.uk/learnwelsh) to help you.
- What do you notice?
- Write a sentence in Welsh in the large bubble to describe your favourite planet and why.



### Planet Panic Game

Delyth loved going into space and her trip has given her a brilliant idea for a game.

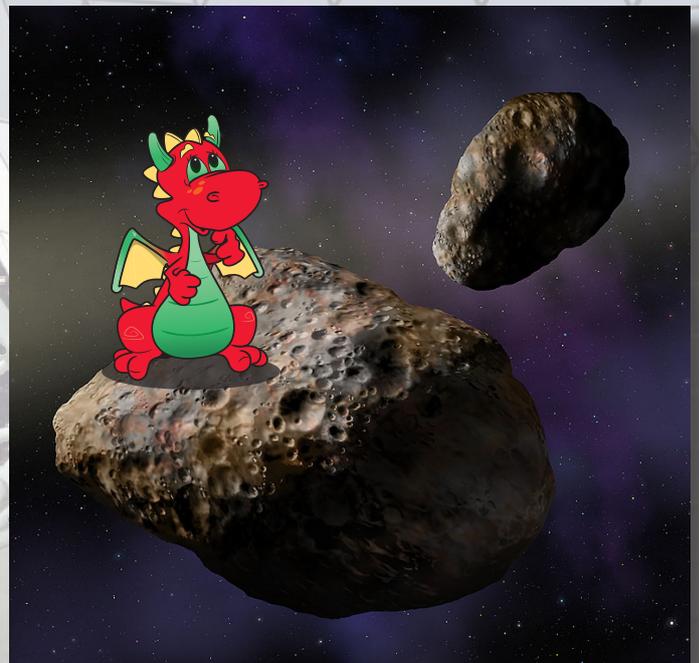
#### What you'll need:

- CD player
- CD of music
- A wide open outdoor space

#### What you do:

- Cut out and paint giant circles, one for each planet.
- Add stickers to the planets showing their name.
- Arrange the planets in a large circle.
- Start the music.
- Pupils should dance around the planets in a circle without touching them.
- When the music stops, pupils should jump onto their nearest planet.
- The teacher should call out a planet name at random. Any pupils on this planet should sit out for one turn.
- When the music starts, pupils should step off their planets and begin moving around in a circle again.
- The teacher should call out another planet name when the music stops.
- Repeat this for around fifteen minutes or until pupils tire.

As an alternative, lay sheets of newspaper on the floor, one sheet for every pupil minus one. These are asteroids in space. Pupils move around, dancing to the music. When the music stops, they should all rush to stand on a newspaper asteroid. Only one pupil can stand on one sheet of newspaper. The pupil without a newspaper asteroid is lost in space and must sit out of the game. Remove one sheet of newspaper and begin the game again. The game ends when there is only one pupil remaining.



### Pick a Planet

#### What you need:

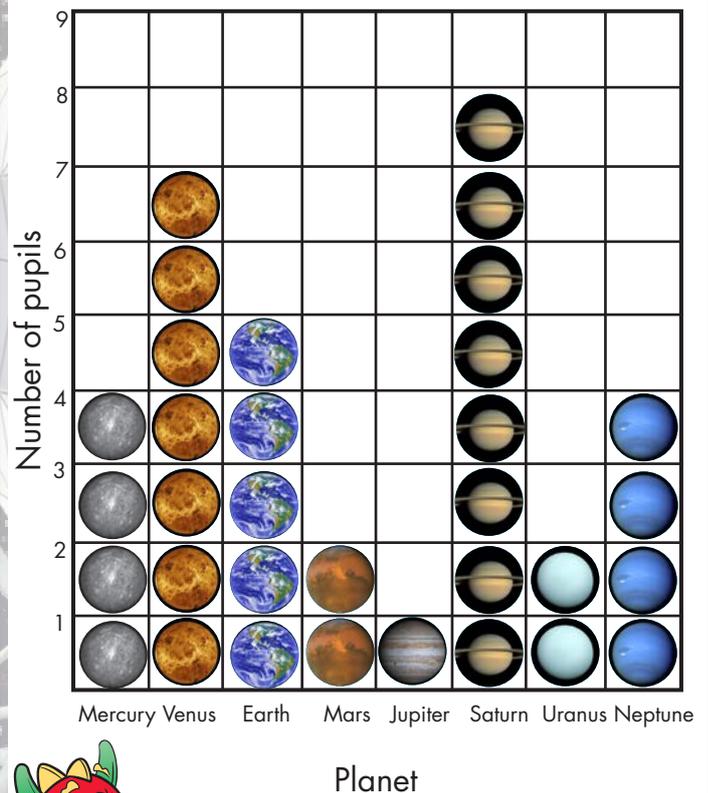
- Images of the planets
- Paper plates
- Paint
- Paintbrushes
- Large sheets of paper
- Marker pens

#### What you do:

- Ask pupils to name the planets. Help them out if they cannot name them all. Show pupils images of each planet.
- Survey each other to find out which planet each pupil would most like to visit.
- Pupils should then paint a picture of their chosen planet onto a paper plate.
- Create a grid for a bar chart using the marker pens and large sheets of paper. Write numbers up the y axis and the names of the planets along the x axis.
- Pupils should stick their plate on the bar chart in the correct column for their planet.
- Once everyone has attached their plate to the bar chart, it can be mounted onto the wall.

#### Ask pupils:

- How many different planets did the class name?
- What other objects can be found in space?
- Which planet would pupils most like to visit?
- Why is this their favourite?
- Are there any planets pupils would not like to visit? Why is this?



### Curriculum Links

	Personal and social development, wellbeing and cultural diversity	Language, literacy and communication skills	Mathematical development	Welsh language development	Knowledge and understanding of the world	Physical development	Creative development
Blast Off! planetarium show	✓	✓		✓	✓		
Exhibit trail at Techniquest	✓	✓	✓		✓	✓	
Rocket Race - post-show activity	✓	✓	✓		✓	✓	✓
Naming Planets - post-show activity	✓	✓		✓			
Planet Panic game - post-show activity	✓	✓	✓		✓	✓	
Pick a Planet - post-show activity	✓	✓	✓		✓		