The New Art Gallery Walsall

STEAM ACTIVITIES

Explore how Science, Technology, Engineering and Mathematics all meet Art.

BUILDING A BALANCING SCULPTURE

Purpose of the task

(as required by the National Curriculum)

- To learn about making sculpture and its historical development
- To learn about how balance requires a centre of gravity
- To learn about uses of symmetry in art and balancing
- To use a range of household materials to create a three-dimensional work of art

Let's talk about sculpture:

Sculpture has a long history and can vary enormously in style, medium, scale, context and purpose.

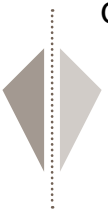
Sculpture has been used for ornamental purposes and to decorate homes and buildings.

Many religions also used 3D sculptures in their places of worship.

Many sculptures are hand crafted. However, these days, artists can use a wide range of materials, equipment and technology such as 3D printers.

Precision is needed especially when creating sculptures that require symmetry. It is also needed when trying to make moving sculptures that balance.

Symmetry is when a shape or object has two or more completely identical sides.



Have a look around your house/ school...

- What kind of 3D sculptures did you find?
- How big are they?
- What materials have been used?
- Are they made by hand or a machine?

Have a look at the following images of sculptures that are in The New Art Gallery Walsall's Garman Ryan Collection.

- **Are there any lines of symmetry on these pieces of artwork?**
- **Can you draw the lines of symmetry?**
- **Can you guess what materials these sculptures have been made from?**
- **What do you think the purpose of these sculptures were? Were they made for decoration or for religious purposes or perhaps to remember someone or something?**

Artworks left to right;

- A Haida bone carving of an animal, Queen Charlotte Islands (c.19th-early 20th century)
- Geoffrey Ireland, Pair of Ear Ornaments, black and white photograph
- Christ with Outstretched Arms, Spanish wood carving, (17th century)
- Gordon Henrick, (1900-53), An Unemployed Man, stone carving

BUILDING A BALANCING SCULPTURE

You are going to design your very own Balancing Sculpture today. This will help you to learn about why symmetry is important by balancing your very own shapes and sequences. Engineers and architects often make mini 3D sculptures of their buildings before building them in full size to understand how the shapes work together to create balance and art.

Things you will need:

1. Scissors
2. String/ pipe cleaners
3. 1 toilet roll tube
4. Beads/ sequins for decoration
5. Wooden skewers
6. Coloured markers/paints
7. Thick cardboard
8. Glue

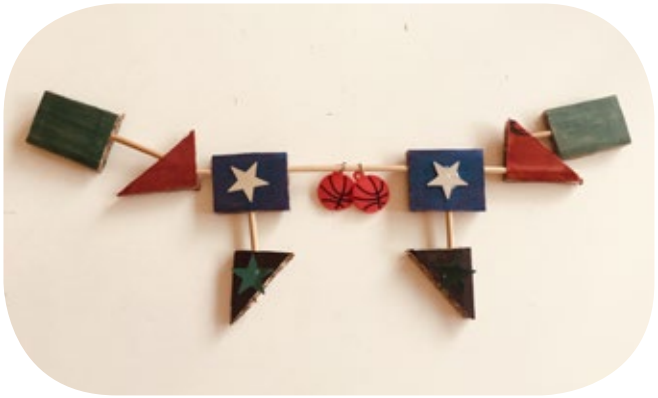
Be mindful of the environment and try to use recycled materials like discarded cardboard / paper.

Method:

1. Flatten out one side of the toilet roll tube and cut out a ‘v’ shape in the centre. Glue down this side.

2. Cut a rectangular base from cardboard and glue the toilet roll tube on it, colour or paint your base and tube.

3. Cut your cardboard into squares or triangles and colour or paint the shapes.



4. Cut off the sharp ends from the wooden skewers and pass your shapes through the sticks, with one of each shape on each side. If you want you can use string or pipe cleaners to join the shapes and beads together.

5. Place the skewer on top of the v shaped cut you made on the roll and find the perfect balance!

- Consider a seesaw in the playground - this sculpture replicates this idea of balancing and moving up and down from a central point.
- Add and take away shapes to see what happens to the balance.
- You will notice that the position of the shapes on the stick is also very important for balance.

Share your work with us:

- We would love to see pictures of your sculptures in action!

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The New Art Gallery Walsall

Walsall Council

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