

As Engineers in **Design and Technology**, we will be learning about structures.

Year 3 & 4 Spring 1 2025  
*Design*

**KEY VOCABULARY**



**At the end of this block, pupils will ...**

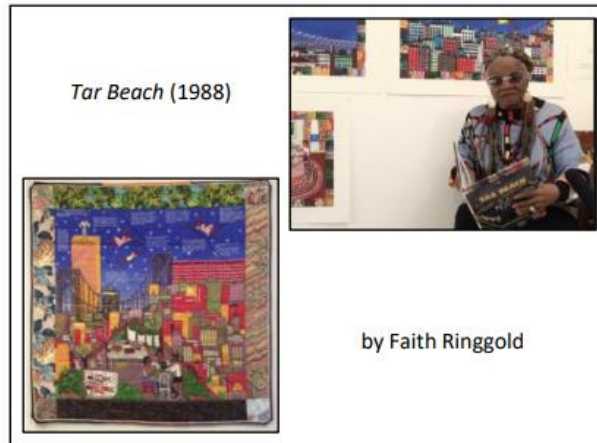
| Know:   | Be able to:                                |
|---|--|
| Triangles provide stability in a structure                                      | Make triangles to form and join trusses    |
| Structural engineers work with architects to ensure structures withstand forces | Identify the forces that affect structures |

| Core Knowledge      | Explanation   |
|---------------------|---|
| structural engineer | A structural engineer analyses and designs the gravity support and force resistance of buildings, bridges and other structures. |
| geodesic            | Geodesic refers to curved surfaces made up of geometric shapes and straight lines.  |
| gravity             | Gravity is the force that attracts objects towards one another, especially the force that makes things fall to the ground.      |

As **artists**, we will be learning about textiles and collage.

In this block, pupils will explore colour, texture and pattern by combining textiles and collage. They will look at the work of artist Faith Ringgold and create a collaborative story quilt.

| Technical Vocabulary | Definition  |
|----------------------|---|
| truss                | a rigid framework constructed from triangles  |
| compression          | the act of putting pressure on an object from different sides until it gets smaller |
| tension              | the state of being stretched tight and stiff  |



| Technical Vocabulary | Definition  |
|----------------------|---|
| radial               | spreading out from a central point towards the edge of a circle                                 |
| pigment              | a substance that gives something a particular colour when it is present in it or is added to it |
| symbol               | a sign, shape or object that is used to represent something else                                |

**KEY VOCABULARY**

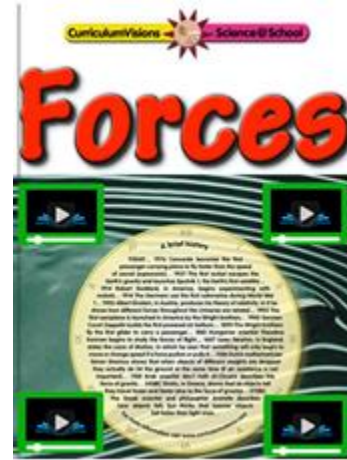
| Core Knowledge | Explanation   |
|----------------|---|
| mandala        | A mandala, which is Sanskrit for 'circle', is a geometric design that holds a great deal of symbolism in Hindu and Buddhist cultures. Mandalas are believed to represent different aspects of the universe and are used as instruments of meditation and symbols of prayer.   |
| dye            | Dye is a natural or synthetic substance used to add a colour to or change the colour of something.  |
| quilt          | A quilt is a multi-layered textile, traditionally composed of two or more layers of fibres. The top layer is often created from smaller fabric pieces joined together in patchwork. The pattern and colour of these pieces creates the design. Quilts can contain historical information about the creator. Quilting was often a communal activity. |

In **PE**, we will be doing OAA and dance.

In **computing**, we are learning about managing online information.

In **music**, we are learning to play notes b, a and g on the recorder and learning simple tunes with those notes.

As **scientists**, we are learning and revisiting forces and use our knowledge to help us as designers. We will also be revisiting light and sound.



| Tier 2 multiple meaning or high frequency |                                   | Tier 3 subject specific |  |
|---|-----------------------------------|-------------------------|--|
| consequence                               | a direct result or effect         | magnet                  | a material or an object that attracts other materials such as iron |
| contact                                   | state of touching something else  | resistance              | a force that slows movement  |
| force                                     | something that causes movement    | friction                | force acting against the direction of movement                     |
| attract                                   | draw something closer             | repel                   | push something away  |
| north                                     | one end of a magnet               | pole                    | one of the two ends of a magnet                                    |
| south                                     | opposite end of a magnet to north | magnetic field          | area around a magnet in which its magnetic force acts              |

### PSHE: Working together and financial capability

This unit will help children understand the importance of money in our lives, where it might come from, and in particular how we can earn it. They will explore the different ways we can use this finite resource, including saving it. They will increase their understanding of the difference between needs and wants, the choices we and our families make and how these might be affected by our values, beliefs and culture. They will consider what 'value for money' might mean and how to make choices based on the information we have about items for sale.

### LKS2 How does the story of Rama and Sita inspire Hindus to follow their dharma?

#### Prior learning

Hindus believe we all have a soul.

The soul is reincarnated when we die, it lives on and moves into a new body.

We collect good and bad karma through our actions.

#### What should we know?

**Dharma** is about duty.

Hindu's believe:

- Everyone has their own DUTY or Dharma to fulfil in life.
- Dharma should be taken seriously -like playing a role in a team.
- Siblings have a duty to look after each other.
- Many Hindu stories are about those who follow their duty, no matter what.
- Hindu marriage joins two people for life, so they can fulfil their dharma together.

Characters who follow their duty.

Celebrating sibling duties

Home, family and work all have duties.

#### What should we be able to do?

*Describe what a Hindu might learn from the story of Rama and Sita.*

*Describe some things Hindus do to celebrate Rama and Sita's commitment to duty and describe how Hindus celebrate Diwali.*

*Explain why Hindu children are encouraged to 'Be as Rama' or 'as Sita.'*

In **French**, we will be learning about items from daily life.