



BRABIN'S ENDOWED PRIMARY SCHOOL

Class: Elm Class Year 1/2 Term: Summer Term
Curriculum Unit – The World of Materials

Key Learning Overview:-

Science - The children will identify a variety of everyday materials. They will compare and group together the materials on the basis of their simple physical properties and their uses.

DT - The children will begin to build structures with some independence exploring how they can be made stronger, stiffer and more stable.

History - The children will learn about the lives of children in Victorian times.

Geography - The children will learn about the contrasting town of Keswick. They will name human and physical features of the Lake District.

Writing Opportunities-

The children will write:

- Recipes for their healthy snack from the previous unit
- Recounts
- Poems with a structure (Limericks/Riddles)

Class Novel, key texts and extracts-

The Velveteen Rabbit

Recipes

Limericks & Riddles

Everyday Materials

Information books about children in Victorian times

Curriculum Shapers

- **Be Curious:** Show an interest in life in the past.
*Use a range of sources to ask and answer questions
- **Be Knowledgeable:** Receive, record and apply information to new situations, using knowledge of materials to support work in history *Nurture a thirst for knowledge
- **Be Adventurous:** Experience exhilaration, challenge and achievement
- **Be Ambitious:** Strive for improvement to build a more stable and secure structure
- **Be Creative:** Apply skills to new situations
- Explore alternatives in problem solving situations
- **Be Collaborative:** Work with others in an interactive learning process

Key Questions

- What are materials?
- How can you change a material?
- What materials can you not change?
- How can you make a structure more stable?
- What is the best method to join parts in a structure?
- What was it like for children in Victorian times?
- How were the lives of children in Victorian times different/same as today?
- What were rich and poor people different in Victorian times?
- What are mountains like?
- What's it like to live there?
- How is it similar and different to where we live?

Key Skills Coverage – Science

Prior Knowledge

EYFS –

*Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.

Year 2 Children

* Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
*Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Key Skills and Knowledge

Working Scientifically

*Classify objects made of one material in different ways
e.g. a group of object made of metal.
*Classify in different ways one type of object made from a range of materials e.g. a collection of spoons made of different materials.
*Classify materials based on their properties.
*Test the properties of objects e.g. absorbency of cloths, strength of party hats made of different papers, stiffness of paper plates, waterproofness of shelters.
*Plan: *Set up enquiry*
Materials floating and sinking (Y1)

Scientific Knowledge

*Distinguish between an object and the material from which it is made.
*Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.
*Describe the simple physical properties of a variety of everyday materials.
*Compare and group together a variety of everyday materials on the basis of their simple physical properties.

Key Learning

*All objects are made of one or more materials. Some objects can be made from different materials e.g. plastic, metal or wooden spoons.
*Materials can be described by their properties e.g. shiny, stretchy, rough etc. Some materials e.g. plastic can be in different forms with very different properties.

Key Vocabulary

Material - the matter or substance that objects are made from

Names of materials - wood, metal, plastic, glass, brick, rock, paper, cardboard

Properties of materials - hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through

Key Skills Coverage - DT

Prior Knowledge

EYFS - Expressive Arts: Exploring and using media and materials

* Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

EYFS - Expressive Arts: Being imaginative

* Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology.

Key Skills and Knowledge

Design - generating ideas

* Select appropriate techniques explaining first/next and last.

* Draw a labelled picture of their product, which may include parts, components and materials to describe their idea.

Making

* Explore how to make structures stronger.

* Join appropriately different materials.

* Test different methods to ensure the structures are stable.

* Cut dowel using a hacksaw and bench hook.

* Use a glue gun with supervision.

Evaluating

* Describe anything that didn't work as well and any changes they had to make.

* Suggest how their product could be improved.

Technical Knowledge

* Build structures, exploring how they can be made stronger, stiffer and more stable

Key Knowledge

structure - something built or arranged in a definite way

join - to fasten together

framework - a structure that supports something built on or around it.

weak - likely to break or fail under strain or pressure; not sturdy

strong - not easy to break or harm

stiffer - not as easy to bend

stable - fixed, firm, or steady in position; not shaky or easily moved

base - the bottom of the structure; that on which something stands or rests; foundation

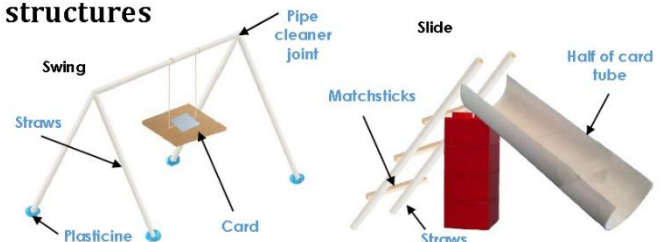
hacksaw - a saw used to cut wood, with a tough, fine-toothed, short blade fixed in a frame

bench hook - a workbench appliance used in woodworking to hold wood in place while cutting with a hand saw

dowel - a narrow round wooden rod



Techniques for assembling freestanding structures



Show children how to join sheet materials and reclaimed boxes together using different tapes and glues.



Key Skills Coverage - History

Prior Knowledge

EYFS - Understanding the world: The world

*Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.

KS1

*During the Me, My Family and My Friends topic the children found out about Queen Victoria
*They gained an understanding of chronology and explored how their lives were different and similar to the lives of people in the past

Key Skills and Knowledge

Chronology

*Identify some similarities and differences between ways of life at different times.
*Recognise that their own lives are similar and / or different from the lives of people in the past.
*Use common words and phrases concerned with the passing of time.

Enquiry

*Observe small details and handle a range of sources - such as pictures, written sources
*Ask and answer simple questions about the past through observing and handling a range of sources.
*Consider why things may change over time.
*Use sources to answer simple questions about the past.

Key Vocabulary

factory

mine

coal

haul

cotton

weaving/weaver

loom

spinning

Key Skills Coverage – Geography

Key Skills and Knowledge

Pupils should develop knowledge about the world, the United Kingdom and their locality. They should understand basic subject-specific vocabulary relating to human and physical geography and begin to use geographical skills, including first-hand observation, to enhance their locational awareness.

Pupils should be taught to:

Locational knowledge

name, locate and identify characteristics of the 4 countries and capital cities of the United Kingdom and its surrounding seas (London)

Place knowledge

Understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom

Human and physical geography

use basic geographical vocabulary to refer to:

- key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather
- key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop

Geographical skills and fieldwork

- use simple compass directions (north, south, east and west) and locational and directional language [for example, near and far, left and right], to describe the location of features and routes on a map
- use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features;
- use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment

Key Vocabulary

mountain

landscape

valley

stream

urban