Our Intent is: To develop inquisitive children who are excited about investigating with curiosity, "How can scientific enquiry explain the world?" Exploring answers by gathering and analysing evidence.

Forton Primary School
Science

Nicky Nook Class
Spring 2
Year A

N.C. LINKS: Living Things and their Habitats

Pupils should be taught to:

- 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.
- 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.

Etymology - Plastic "capable of shaping or molding a mass of matter," from Latin *plasticus*, from Greek *plastikos* "fit for molding, capable of being molded into various forms; pertaining to molding,"


Everyday Materials by Peter Riley

Key Concept: Everyday Materials
Key Question: True or False: Any material can be used to create everyday objects.

Vocabulary

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Unit Overview:

Manipulating different materials and why certain materials are used for a specific purpose.

Subject Specific:

Material Metal

Plastic

Suitability Compare

Group Wood

Manipulate Squashing

Bending Twisting

Stretching Properties

Working Scientifically:

Research relevant

Questions scientific enquiry

Comparative and fair test

Systematic careful observation accurate measurements

Equipment data gather record classify keys conclusion predictions differences similarities changes improve interpret

New Knowledge Progression:

- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, water, 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 (applying a force).
- Some materials can be found naturally; others have to be made.

Building on Prior learning from EYFS:

Explore/observe – look closely at/notice.
Describe – Talk about what the notice/observe; talk about changes they notice and changes over time.

Record – draw pictures, take photographs, make models or scrapbooks.

Questioning – show an interest I /be curious about, ask questions about what they notice/ observe or changes that occur.

Building on Prior learning when B follow A:

- 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.

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	Explain – talk about why things happen/occur; talk about how things work. Research – talk to people (visits/visitors/family), think of questions to ask to find things out and find out how things work; use first hand experiences/use secondary sources (eg books, photographs, internet). *Equipment and measures* – use senses/use simple equipment to make observations (eg magnifiers, pipettes, egg timers, digital microscopes etc). *Compare/sort/group/identify/classify* – notice similarities, notice differences: talk about similarities and/or differences. *Test* – make suggestions, show resilience, work with others. *Vocabulary* - use simple vocabulary to name and describe objects, materials, living things and habitats.	• Compare and group together a variety of everyday materials on the basis of their simple physical properties. • 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 • Some materials can be found naturally; others have to be made
Key Skills (Disciplinary)		

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- Use simple scientific language to talk about / record what they have noticed.
- Use observations to make suggestions and / or ask questions.
- Observe and describe simple processes / cycles / changes with several steps *(e.g. growth cycle, simple food chain, saying how living things depend on one another).*
- Observe closely and communicate with increasing accuracy the features or properties of things in the real world.
- Begin to use simple scientific language (from Y1 PoS) to talk about or record what they have noticed.
- Use observations to make suggestions and / or ask questions.
- Look / observe closely and communicate changes over time.
- Look / observe closely and communicate the features or properties of things in the real world.
  Observe closely using their senses.
- Name / identify common examples, some common features or different uses.
- Name / identify common examples and some common features.
- Name basic features of objects, materials and living things.
- Say how things are similar or different.
- Compare and contrast simple observable features / characteristics of objects, materials and living things.
- Raise their own logical questions based on or linked to things they have observed.
- With help / scaffolds, begin to ask questions such as 'What will happen if…?"
- Ask simple questions about what they notice about the world around them.
- Demonstrate curiosity by the questions they ask.
- Make suggestions about who to ask or where to look for information.
- Use simple and appropriate secondary sources (such as books, photographs, videos and other technology) to find things out / find answers

Sequence of Lessons:

1. LO: Identify a variety of everyday materials.
2. LO: Describe the physical properties of a variety of everyday materials.
3. LO: Investigate the suitability of a variety of everyday materials.

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4. LO: Compare natural and man-made materials.

Enhancements:	End of Unit Outcome:
Materials Treasure Hunt	Build houses for the three little pigs – which material works best?

Oral Assessment:

True or False: Any material can be used to create everyday objects?

Can you identify a variety of everyday materials?
What are the physical properties of a variety of everyday materials?
What is the most suitable everyday materialsto use as an umbrella, coat, plate, window etc?
Which of these materials are natural and man-made? How do you know?