

YEAR 2 UNIT 4: Move it (Materials)

Enquiry Question: How can the shape of materials be changed?

Related units: Year 1 – Celebrations: Do all materials make shadows; Polar Adventures: Which gloves are waterproof?; Year 2 Unit 2 – Material Monsters: Why are materials suitable for different jobs; Year 4 Unit 3 – Looking at States: What happens to materials if they are heated or cooled?

Unit overview

National Curriculum link Year 2: Uses of Everyday Materials. This unit builds on children's understanding of the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Children will find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Assessment (Expectations)

1. Explain how the shape of material can be changed
2. Name a material than can be: a) squashed ;b) bent; c) twisted and d) stretched.
3. Name the properties of materials which can be: a) squashed; b) bent; c) twisted; d) stretched e.g. soft, flexible
4. Give a definition of bend, pull, push and stretch

Scientific vocabulary

- direction
- bend
- dough
- elastic
- move
- pull
- push
- recycle
- repair
- reuse
- squash
- squeeze
- stretch

Cross-curricular links

Maths:

- Estimating and comparing distance.
- Measuring distance using non-standard and standard measures.

Activities and working scientifically

Flying Fish and Flying Mouse

Observing closely, using simple equipment, performing simple tests.

Asking simple questions and recognising that they can be answered in different ways.

Pencil Rocket

Using their observations and ideas to suggest answers to questions, gathering and recording data to help in answering questions

Scooters Scooting

Discuss observations and write statement. Think about what they would like to find out. Find the answers to their questions.

Squash me, bend me, twist me, stretch me

Use different forces on different objects. Discuss observations.

Sort Me

Identifying and classifying

Teacher knowledge

It is assumed that most children know, from their Foundation Stage experience, words such as squash, squeeze and direction, although they might not know how to write and spell them.

In the set of activities, one of the main aims is to focus on supporting children to: raise their own questions perform simple tests to answer those questions gather and record data to help answer the questions. Children will also need support in observing, describing and explaining what happens, in order to answer their original question. Supporting children to observe and describe step-by-step what they did and make links between cause and effect in their thinking, will help them in the quality of their descriptions and to move towards beginning to explain what happened. Then, using this new knowledge they can ask further questions and explore their new ideas.

Resources

BBC Bitesize – Materials <https://www.bbc.co.uk/bitesize/topics/zrsgk7>

Virtual Experiments: <http://ve12.lgfl.org.uk>