



Materials mission - KS2 Challenge Sheet

Look at a number of everyday materials and the things they are used for (and why?). Discuss the properties that make specific materials useful. Sort materials as electrical conductors or insulators. Look at other materials and objects around the classroom.

Educational objective

To differentiate between 'object' and 'material' and to be aware of the properties and uses of materials.
To explore electrical conductivity and materials.

Approach

Whole class introduction using a collection of various 'objects/materials'. Discuss their properties and uses. Group activities - children in pairs making a simple circuit then using it to test and sort materials as electrical conductors or insulators.

Specific skills to be developed

Science AT1-process skills, AT3-materials.



Cross-curricular links

Science

Ideas for extension activities

Test other properties - thermal insulation, magnetism etc. Use variable resistors to brighten/dim bulbs, change motor speed.

Equipment we will provide:

pots of collected materials

battery packs

crocodile clip wires

bulbs

magnets

photocopyable worksheets

Subject skills / Desirable outcomes

Materials and their properties

Experimental & investigative science

Electricity (Science)

Life skills

Innovation skills

Problem-solving skills

Team working skills

Communication skills

Investigation skills