

INFANT CLASSES – PROPERTIES AND CHARACTERISTICS OF MATERIALS

Teacher Guidelines: pp 123-128

Linkage:

- Living Things
- Materials and change - p 123 – effects of heating and cooling
- Light – materials that allow light through
- Heat – materials that conduct heat
- Magnetism and electricity – materials that are magnetic

Integration:

- Geography: Natural Environments – Weather
- Oral Language Development – English and Gaeilge
- Visual Arts
- History
- Maths - sorting

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Content Objective:

- **OBSERVE AND INVESTIGATE A RANGE OF FAMILIAR MATERIALS IN THE IMMEDIATE ENVIRONMENT**

Water, wood, textiles, food, plastic, metal, rock.

Some suggested activities:

- Collect some water, a piece of wood, a piece of fabric, etc. Get the children to look at the items. Feel them. Scrape them. Think of one word to describe them. (Soft, hard, rough, smooth, etc) Use a magnifying lens to examine them. Discuss what these materials are made of. See Exemplar 39, Teacher Guidelines p124
- Can you name something we use water for? Repeat the question for each of the materials mentioned.
- Would you think people had these materials long ago? Name one they may not have used. Why did you choose that one?
- Pour some water on each item and observe what happens. Discuss the results. Examine the materials with a hand lens.

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Content Objective:

- **DESCRIBE AND COMPARE MATERIALS, NOTING THE DIFFERENCES IN THE COLOUR, SHAPE AND TEXTURE**

Some suggested activities:

- Choose two of the materials. Are they the same colour? What is different about them? Are they the same shape? Why do you think the shape is different? Could you draw each shape on paper? Touch the two materials. Do they feel the same? What is different about them?
- Take the three primary colours in paint. Put blobs of paint on paper. Now mix red/blue, yellow/red, blue/yellow. What new colours did you make?
- How would you change the colour of the material? How would you change the shape of the material? (Roll it, fold it, cut it)
- How would you change the texture of it? (Scrape it, add pieces to it)
- Is the material wet/dry? Would that affect the colour, shape or texture of the material? Try it and see what happens.
- Choose one of the materials. Can you draw three items of different colour made from this material; 3 items of different shape and 3 of different texture made from this material? Repeat for the other materials on display.

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Content Objective:

- **KNOW ABOUT SOME EVERYDAY USES OF COMMON MATERIALS**

Some suggested activities:

- Compare different items from the kitchen e.g. knife, fork, spoon (different sizes and shapes) garlic press, masher, bottle opener etc. How are they alike? How are they different?
- Compare different toys e.g. doll, teddy, game, car/lorry etc.
- Compare different clothes: Uniform, summer, winter clothes. Are they all the same? What is different about them and why?
- Compare the objects in our schoolbags: pencil, paper, copybook, book, ruler, pencil-case, eraser etc.

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Content Objective:

- **GROUP MATERIALS ACCORDING TO CERTAIN CRITERIA**

Strength, colour, texture, flexibility

Some suggested activities:

- Using a variety of materials from the above collection, choose all the ones that look strong and will not bend.
- Now choose all the silver coloured ones (red, blue, yellow) ones. Make different groups /sets of these.
- Look at the materials again. Make two groups – the ones that are hard/rough to touch and the ones that are soft/ smooth to touch.
- Now make a group of all the materials that will bend, or are flexible. Why do you think they are made like this?
- Look around your classroom. Can you find one item that is strong, one that is your favourite colour, one that has texture in it, and one that is flexible.

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Content Objective:

- **INVESTIGATE MATERIALS FOR DIFFERENT PROPERTIES, FOR EXAMPLE**

Materials that are attracted by magnets

Materials that keep us warm

Materials that absorb water and those that are waterproof

Some suggested activities:

- Choose four different materials. Find a magnet and test these materials to find out if they are attracted /not attracted to the magnet. Make two groups of your findings.
- Look around your home/classroom/bedroom. Can you find four materials that keep you warm? Feel /Touch them. Do they all feel the same? Tell me how they feel/Describe how they feel for your friend.
- Think of four things you would wear in winter that you would not wear in summer. (Think snow, frost, ice, rain). Draw them. Say why you would wear these items in winter. Why would you not wear them in summer?

Some suggested investigations:

- Choose two materials that you would use to absorb/mop up water with. Now find two materials that will not absorb/allow water to go through them. Why do you think this happens? Test them to find out.