

Age Range: KS1; age 5 – 7 years

Theme: Magic Materials

Objectives:



- To begin to explore some of the properties of water.
- To begin to explore absorbent and non-absorbent materials.
- To find out how water drops behave on different surfaces.

Resources:



Things with which to make water drops e.g. plastic pipettes, straws. Clean eye droppers etc.
Water (coloured water would be easier to see).
Small samples of different materials some of which absorb water and some that don't.

Activity Notes:



Show the children how to make drops with the different kinds of objects. Do not let them suck water up the straw, but just dip it in the water.
Give them time to practice making water drops. Ask them to try to make drops of different sizes. When they can do this with some accuracy ask them to drip drops onto samples of different materials.
What happens? Ask them to see what happens when two, or more, drops meet , on a hard and non-absorbent surface. Can they race their drop with a friend?

Key Questions:



Can you make different size drops? What happens to the drops when you drip them onto different surfaces? Can you make two drops join? What happens? Can you race your drop against someone else's?

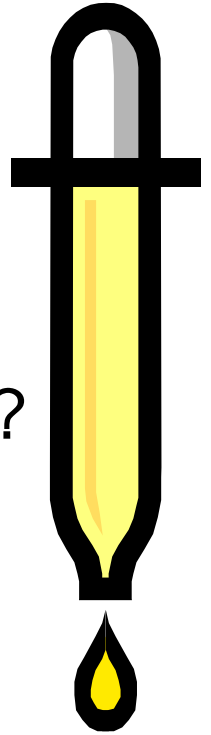
Recording Opportunities:



This activity involves lots of observation and talk – and fun.
The children could write a group or class poem about their observations or about the drop race.

Drip Drop

- Can you make a water drop?
- Can you make lots of the same size?
- Can you make bigger ones and smaller ones?
- Drip some water drops onto the different surfaces.
- What happens when two drops meet?
- Can you race your drop against a friend's drop?



Age Range: KS1; age 5 – 7 years

Theme: Fabulous Forces

Objectives:



To gain experience of the movement of familiar things.

To investigate how things fall.

Resources:



A selection of objects of different weights, size, shape and surface area eg ball, paper – flat and crumpled, large feather, scarf, piece of pasta.

Activity

Notes:



This is a good introduction to fair testing. The objects need to be dropped from the same height.

To be successful this needs to be quite high, perhaps from a climbing frame.

Safety is a consideration here. The activity will need to be supervised all the time.

The children could time the fall by counting hand claps or by putting marbles in a jar. Focus children's attention on the rate at which heavy and light things fall. They will fall at the same rate if the air resistance is the same. The crumpled and flat pieces of paper illustrate this well. Try dropping things in pairs and ask the children which they think will reach the ground first, and why. Parents could supervise this activity, help children to read the activity card and ask questions to focus their attention to the key points.

Key Questions:



- Do all the objects fall in the same way?
- Which falls the slowest/quickest?
- Do you know why they fall?

Recording Opportunities:



The children can display the objects rank ordered from fastest to slowest with an explanation of why this happened.

- What will happen if you hold each of these objects up and then let them go?
- Choose two.
- Which do you think will reach the ground first?
- Were you right? Why do you think this happened?
- What do you notice about how things fall to the ground?
- With a partner try to time how long each object takes to reach the floor. Make sure what you do is fair.



Age Range: KS1; age 5 – 7 years

Theme: Superb Sound

Objectives:



To explore different kinds of sound and sources of sound.

To begin to understand that sounds are made when something shakes or vibrates.

Resources:



A collection of junk materials of all kinds; some that make sounds when they are hit or shaken, and some that don't.

String. Beaters to tap the 'junk' with.

Activity Notes:



The children experiment with the junk materials, banging, tapping and shaking them. Ones that make a sound should be saved. When each child has a collection of several objects ask them to hit them on a table, in their hand and hanging from a piece of string. Focus their observations on the quality and volume of the sound.

Objects placed on something will make a duller sound than when they are freely suspended because they cannot vibrate so freely. Help the children to suspend several objects on string and play on them. Focus their attention on the sort of sounds (high/low/soft/loud) made by different sizes and shapes of objects, and objects of different materials. They then 'play' the objects with different kinds of beaters.

Key Questions:



- Which objects make a loud sound?
- Which objects make a soft sound?
- Can you make high and low sounds?
- What happens to the sound if you change the beater?

Recording Opportunities:



The suspended 'instruments' could be left on display along with an assortment of beaters for other children, and adults, to play. The children could make labels encouraging people to 'have a go'.

JUNK BANG!

- Which of the objects makes a sound when you tap it, hit it or shake it?
- Hit the object when it is lying on the table, and when you hold it.
- Tie some string on it and tap, bang or hit it again. What sounds can you hear? Are they loud or soft, high or low?
- Is the sound different if you use a different beater?
- Can you compose a series of sounds?



Age Range: KS1; age 5 – 7 years

Theme: Living it up

Objectives:



To find out about what children can do with different parts of their body.

To find out some features of living things.

Resources:



Free stacking building blocks. These do not have to be the same shape or size.

Activity

Notes:



The aim of this activity is for children to find out how easy or difficult it is to build a tower of building blocks without using their hands. Start by asking them about other animals that have hands, and what they use them for e.g. squirrels for eating, monkeys for eating, grooming, and climbing. What animals can they think of that don't have hands? Which body parts do they use to eat, build nests etc? Allow time to talk through what parts of their bodies the children might use to pick up and position blocks and give them practice time.

Safety – make sure the blocks are too big to swallow, are clean and not covered with toxic paint. The children then make a tower in any way they wish without using their hands. Parents and older children may need to encourage younger children who are finding this activity difficult at first.

Key Questions:



- What parts of your body do you use most in everyday life?
- What body parts do animals use if they haven't got hands?
- Pretend you are an animal without hands and see if you can stack blocks on top of each other to make a tower.
- Which movements are easy and which are difficult? Why do you think this is?

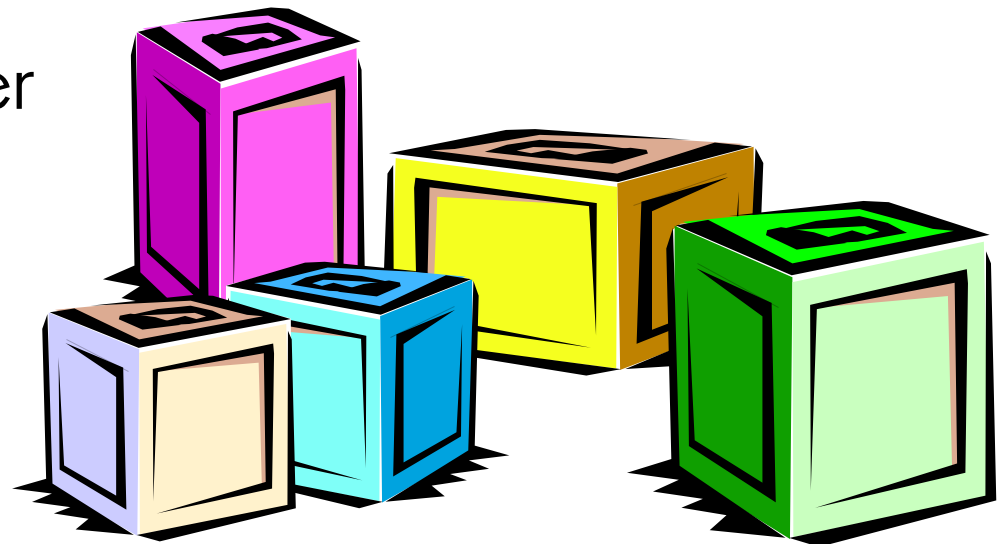
Recording Opportunities:



The towers **ARE** the recording but the children could also draw which parts of their body they used.

LOOK, NO HANDS!

- Can you build a tower without using your hands?
- What other body parts could you use?
- Could you use several parts working together?
- How easy is it?
- Are some parts easier to use than others?
- What does your tower look like?
- Is it straight or crooked, strong or wobbly?



Age Range: KS1; age 5 – 7 years

Theme: Magic Materials

Objectives:



To observe how bread changes when it is heated.

To investigate materials using sight, smell and touch.

Resources:



White bread, and a toaster – ***follow the safety code on page 18 of Be Safe! third edition.***

Squared paper, scissors, coloured pencils.

Butter, butter knives, plates etc from which to eat the toast.

Activity



Notes:

Talk to the children about the need for good hygiene and make sure they wash their hands thoroughly. Ask them to gently touch the bread and to smell it.

The children draw around their slice of bread on squared paper and colour it to look like the bread. This will probably be confined to the darker crust. They then cut their bread shape out. Older children can count the squares their slice covers. The bread is then toasted and the children do the same things with the toasted bread. By laying one drawing over the other, and counting the squares the children will see that toasted bread is smaller than untoasted bread, due to evaporation. The toasted bread is darker because the surface has been burned. If they wish they can eat the toast.

For guidance see P14 of Be Safe! Parents who have come to the Fair may like to participate in this activity and could also help supervise children.

Key Questions:



- What does your slice of bread look like, smell like, feel like?
- What is it like when it has been toasted?
- What are the differences?
- Do you know why the bread is smaller and has changed colour?

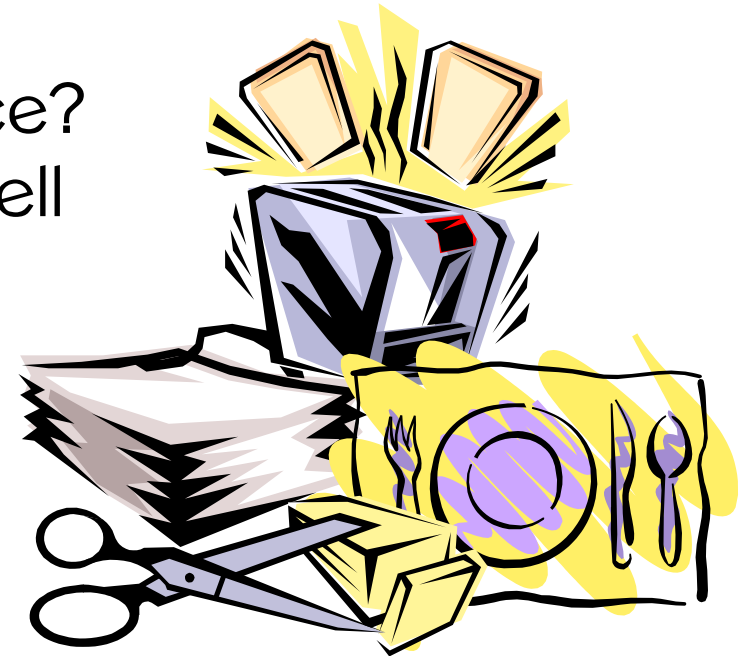
Recording Opportunities:



The drawing of each the bread and toast slices with a description of the differences, and if the children are old enough to understand, an explanation.

MAKING TOAST

- Draw around a slice of bread. Cut it out and colour it so that it looks like your slice of bread.
- Ask an adult to help you toast it.
- Draw round the slice of toast, cut it out and colour it.
- What difference do you notice? Does it look, and feel and smell the same?
- When you have finished you can eat your toast.



Age Range: KS1; age 5 – 7 years

Theme: Magic Materials

Objectives:



To give children the opportunity to explore and recognise some similarities and differences between types of paper.

Resources:



A variety of papers of different texture, thickness, surface treatment, stretchiness, fibre content. Magnifying lenses.

Activity Notes:



In this activity the children are encouraged to explore the papers freely. They can try twisting them, crushing them, tearing them, tugging them, crumpling them, wetting them. They then look at them through the magnifying lenses, comparing the papers.

Key Questions:



- Does it make a difference if you tear across or down the paper?
- Does toilet tissue tear easily along the perforations?
- Does it tear as easily anywhere else?
- What happens when you crumple the papers and then let go?
- What do the papers look like when you look through the magnifier?

Recording Opportunities:



The children illustrate through movement how papers act when they are torn, stretched and crumpled. In pairs or small groups they can make up a dance or sequence of movements that reflect their observations.

- Look at the collection of papers.
Tear them, crumple them, wet them.
- What else could you do to them?
- Do they all act in the same way?
- Look at them with the magnifier.
- What differences do you notice?
- Which papers are the same, and which are different?



Age Range: Key Stage 1; age 5 – 7 years

Theme: Magic Materials

Objectives:



To find out the properties of some common materials.

To find out which materials are the most flexible and durable so that they would be suited to making a door number.

To sort the numbers into groups of suitable and unsuitable materials and to begin to recognise similarities and differences in their properties.

To collect evidence to try to answer a question.

Resources:



Strips of material eg fabric, polythene, styrofoam, foil, card, paper, plasticine, clay, Blu-tack.

Activity

Notes:



Remind the children of the story of the Three Little Pigs and how they all built their own houses, out of straw, sticks and bricks. How would a visitor know who lived in which, and how would the postman deliver letters? The children explore making a house number of their choice using different materials. As they work ask them if they are having difficulties; some materials will be too floppy, some too rigid, some too delicate – and some will be just right! Encourage the use of correct vocabulary as they work and make their observations. The children can then place one of their numbers into the correct sorting hoop. When all have had a turn, talk about the experiences of the group as a whole. What do they notice about the materials in each hoop?

Key Questions:



- Is it easy to make your number with that material?
- Why?
- Why not?
- What sort of material would be the easiest to use?

Recording Opportunities:



The sorting hoops with the numbers inside them, labelled with a phrase by each to say why it was/was not suitable.

THREE LITTLE PIGS

- What number will your little pig live at?
- Which of these materials do you think would be suitable to make the house number?
- Why do you think that?
- Make your number with as many different materials as you can.
- Were you right?



Age Range: KS1; age 5 – 7 years

Theme: Living it up

Objectives:



To investigate how the children's eyes see objects.

That the children's eyes help them to be aware of what is around them.

Resources:



A coat with a hood.

Chalk or stand up labels.

Activity Notes:



The purpose of this activity is to give the children an opportunity to explore their field of vision and to find out that we can only see objects in front, or slightly to the side, of us. One child stands on a marked spot in a large space. The other children stand spread out behind a marked line behind him/her. The child at the front pulls the hood of the coat as far forward as it will go. The rest of the children quietly move towards him/her moving their arms in the air.

As soon as the child at the front sees a movement s/he points to it and that position is marked with a chalk cross or a label. This is repeated with the hood up but folded back to face level, and without the hood up. The children will need encouragement not to make any noise to give a clue as to where they are. If there is room this activity could be carried out in pairs. Some children may need help from an adult with this activity.

Key Questions:



- What can you see with your eyes closed?
- What can you see behind you? (eyes open, head to front).
- What can you see to the side of you?
- How far to the side can you see without moving your head?
- Can you see more if you move your head?

Recording Opportunities:



A series of pictures of a child with hood up, folded back and no hood.
Arrows to represent the field of vision.
Short written description of how far the child could see.

WHO CAN YOU SEE?

- One of you stand in a space.
- Pull the hood up as far as it will go.
- When you are ready tell the other children and they will quietly walk towards your back waving their arms.
- When you see a movement say: "STOP!" Point to the movement.
- Put a mark where that person is.
- Do the same thing again with the hood up but folded back to your face.
- Do it once more without the hood up.
- What do you notice about how far you can see?

