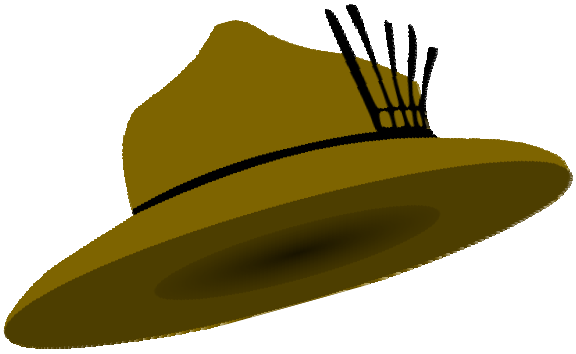
Discovery Challenge

Learn How Things Work

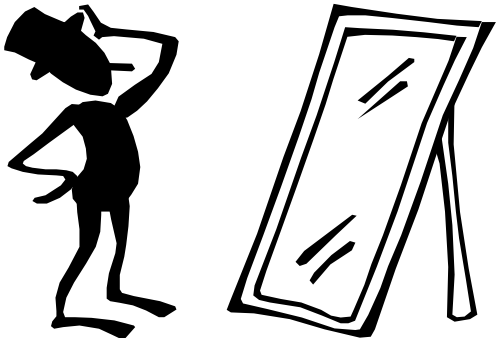
A boy carries out suggestions more wholeheartedly when he understands their aim.

Sir Robert Baden-Powell



Index

How does a Mirror work ?



A mirror is a smooth surface that reflects a backward image of what is in front of it. Not all smooth surfaces are reflective.

How Mirrors are Made

Mirrors are typically made of three layers: a glass top with an aluminium backing, with a dark protective layer on the bottom.

How Mirrors Work

Light always travels in a straight line, unless it hits something. When light hits a mirror, it bounces back at the same angle

Mirror Shapes

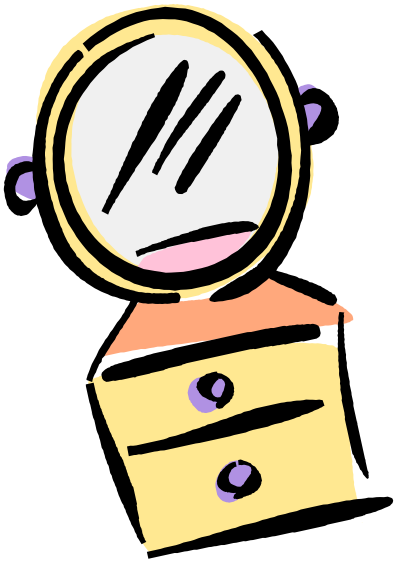
Curved mirrors, commonly found in fun houses and carnivals, do not accurately reflect objects because the reflected items are not hitting the mirror in a straight line. Use a metal spoon to see how the shapes of reflective surfaces affect the way the image is reflected

About Reflection

When we look in mirrors, we face the reflection and not the object. That is why some things seem backwards in mirrors

Reflective Surfaces

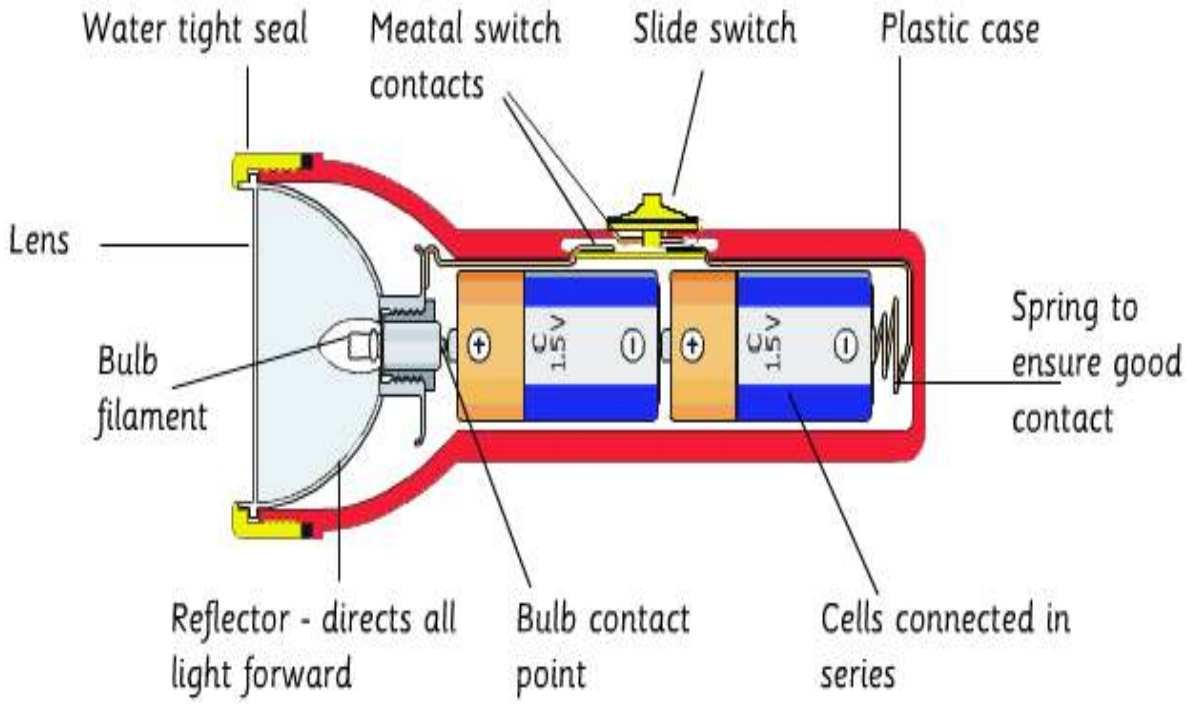
Mirrors are not the only reflective surface. Still water is reflective, as are windows and shiny metals,



What is inside a torch ?

Shining a light

Have you dismantled an electric torch to find out how it works? Look at the diagram below which shows the arrangements of parts inside a simple common torch.



Why did the designer choose this particular combination of parts?
The metal parts of the torch must ***conduct*** electric current if the torch is to function. They must also be able to withstand wear and tear.

The only part of the torch that is not a ***conductor*** (an item which lets electricity pass through) is the plastic casing. It is called an ***insulator***. Its shape is very important in making the torch easy to handle and use.

How do airplanes stay in the air?

Four forces keep an airplane in the sky. They are ***lift, weight, thrust and drag.***

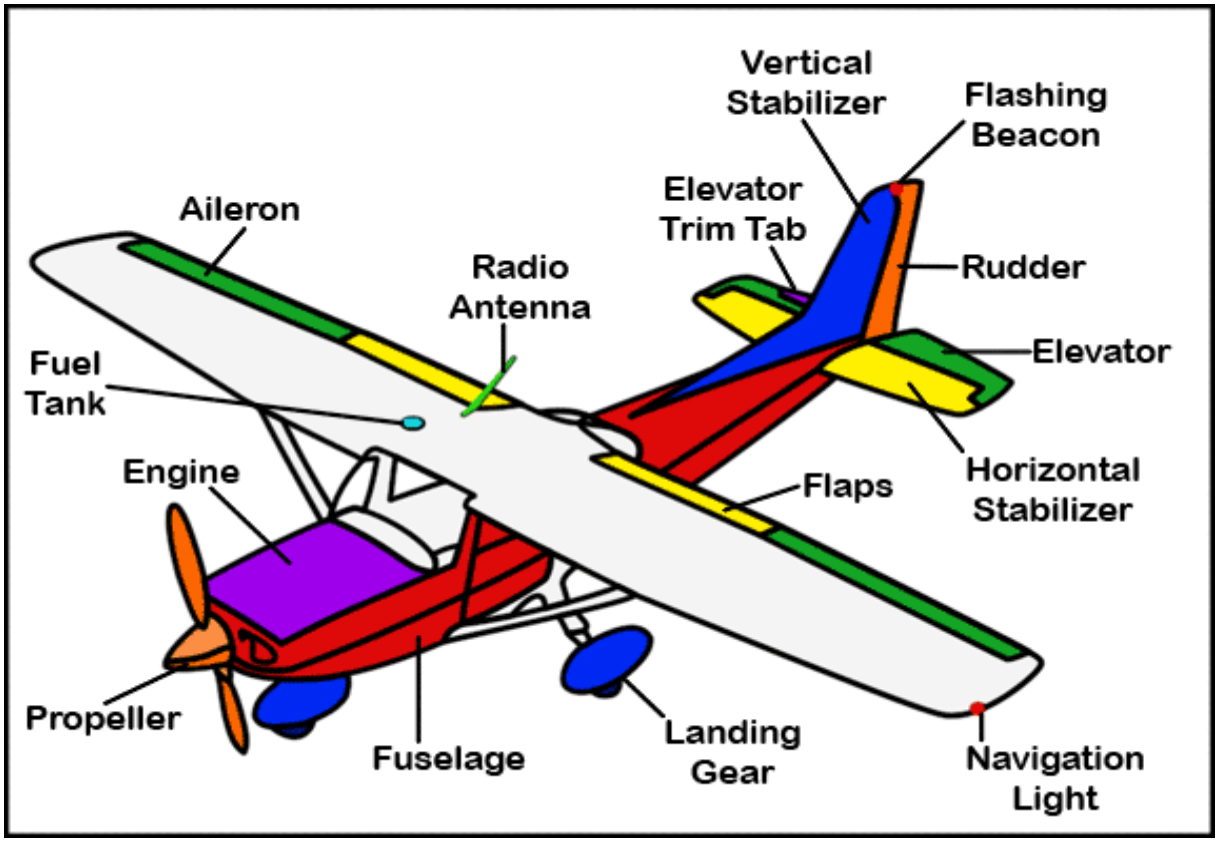
Lift pushes the airplane up. The way air moves around the wings gives the airplane lift. The shape of the wings helps with lift, too.

Weight is the force that pulls the airplane toward Earth. Airplanes are built so that their weight is spread from front to back. This keeps the airplane balanced.

Thrust is the force that moves the airplane forward. Engines give thrust to airplanes. Sometimes an engine turns a propeller. Sometimes it is a jet engine. It doesn't matter as long as air keeps going over the wings.

Drag slows the airplane. You can feel drag when you walk against a strong wind. Airplanes are designed to let air pass around them with less drag.

An airplane flies when all four forces work together. But, most airplanes need one more thing: They need a pilot to fly them!



Experiment: Grow Your Own Salt Crystals

What you'll need:

- A jar
- Water
- About half a cup of salt
- A spoon for stirring
- String
- Scissors
- Pencil

How to do it

1. Fill jar with water
2. Add about half a cup of salt to the water.
3. Mix solution together with a spoon
4. Cut a piece of string with scissors and tie one end to the middle of the pencil.
5. Place the pencil over the top of the jar and let the string dangle into the middle of the solution.

******Don't forget to clean up when you've finished.**

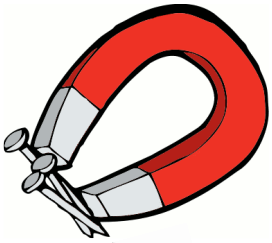
What happens next?

Wait a little. Salt Crystals will have formed around the string. How are they? Large, Small, Pointy? What color are they?

Crystals can be found grouped together as lots of small crystals or as huge individual crystals.

Salt crystals under a microscope

Magnetism



In part 1 of this challenge we learnt how magnets work and how they can be used. Now it is the time to learn how to apply Magnetism in a fun way.

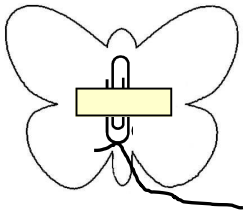
Hovering Butterfly

Use the power of magnetism to make a butterfly hover.

What you will need:

- Strong Magnets
- Medium Sized Shoe Box
- Ball of String
- Paper clip
- Felt tip pen/s
- Tissue Paper
- Scissors (round tipped)
- Glue
- Glitter Glue, Googly Eyes, Pipe Cleaner, etc—to decorate your butterfly

How to do it:



- Lay a shoe box (without a lid) on its side. Then cut a piece of thread longer than the height of the box.
- Tie a paperclip to one end of the thread, Cut a butterfly out of tissue paper. Tape it to the paperclip.
- Hold the butterfly inside the box, almost touching the top. Pull the thread tight and tie it to the bottom.
- Lay a magnet on top of the box, directly above the point where the thread is taped to the bottom.
- Hold the butterfly near the magnet tightly. Then let go. The butterfly should hover by itself
- Try moving the butterfly further away from the magnet, by shortening the thread. Does it still hover?

What is going on?

Paper clips are made from steel which contains iron. The attraction between the magnet and the iron is strong enough for the magnet to pull on the paperclip, even without touching it. The thread stops the paperclip from being pulled on to the magnet. The stronger your magnet, the further away you can move the paperclip and still make it hover.

Will it Sink? Or Will it Float?

What you'll need:

- Plastic Water Tub
- Various objects of different size, shape, weight, maybe include something with holes (cork, wooden spoon, metal spoon, safety pins, sponge, etc)
- 2 Trays - 1 for the Floaters and 1 for the Sinkers.

How to do it:

- Select a variety of objects with the children.
- Talk about the size, shape and weight of the objects.
- Ask the children to guess which objects will sink or float.
- Place the objects in the water one at a time.
- Talk about what happens to the object: if it floats, which way up is it? Is it on top of the water?
- Sort the objects into sets, those that float and those that sink.
- Talk about their predictions, were they correct, and encourage the children to discuss what they think makes something sink or float.
- Put a piece of play-dough in the water and see what happens. Make a shape of a boat, using the same piece of play-dough, put in the water and see what happens.

How is a rainbow formed?

A *Rainbow* is an optical and meteorological phenomenon that is caused by reflection of light in water droplets in the Earth's atmosphere, resulting in a spectrum of light appearing in the sky. It takes the form of a multi-coloured arc. Rainbows caused by sunlight always appear in the section of sky directly opposite the sun.

In a "primary rainbow", the arc shows red on the outer part and violet on the inner side. This rainbow is caused by light being refracted while entering a droplet of water, then reflected inside on the back of the droplet and refracted again when leaving it.

In a double rainbow, a second arc is seen outside the primary arc, and has the order of its colours reversed, red facing toward the other one, in both rainbows. This second rainbow is caused by light reflecting twice inside water droplets.

The Colours of the Rainbow

RED

ORANGE

YELLOW

GREEN

BLUE

VIOLET

An Irish Legend

A Leprechaun is a type of fairy in Irish Folklore, usually taking the form of an old shortly man, clad in a green coat, who enjoys partaking in mischief.

Leprechauns spend all their time busily making shoes, and store away all their coins in a hidden pot of gold at the end of the Rainbow.

If ever captured by a human, the Leprechaun has the magical power to grant three wishes in exchange for their release.

Make Your Own Rainbow

Learn how to make a rainbow with this fun science experiment. Using just a few simple everyday items you can find out how rainbows work while enjoying an interactive, hands on activity.

What you'll need:

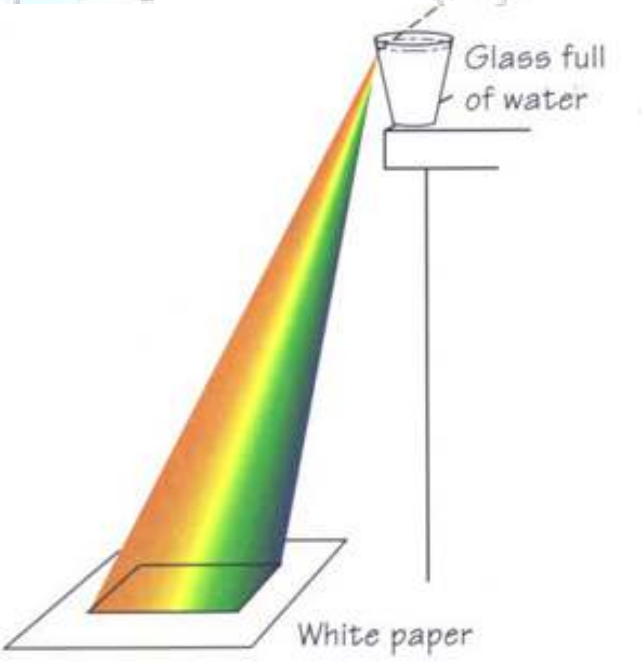
- A glass of water (about three quarters full)
- White paper
- A sunny day

How to do it:

- Take the glass of water and paper to a part of the room with sunlight (near a window is best).
- Hold the glass of water (being careful not to spill it) above the paper and watch as sunlight passes through the glass of water, refracts (bends) and forms a rainbow of colors on your sheet of paper.
- Try holding the glass of water at different heights and angles to see if it has a different effect.

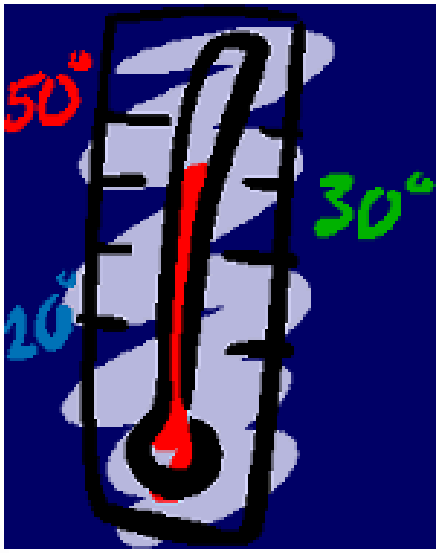
What's happening?

While you normally see a rainbow as an arc of color in the sky, they can also form in other situations. You may have seen a rainbow in a water fountain or in the mist of a waterfall and you can even make your own such as you did in this experiment.



Rainbows form in the sky when sunlight refracts (bends) as it passes through raindrops, it acts in the same way when it passes through your glass of water. The sunlight refracts, separating it into the colors red, orange, yellow, green, blue, indigo and violet.

How does a Thermometer work?



There are many types of thermometers used around the home. The goal of each is to detect temperatures and measure temperature changes. For example:

· The thermometer outside tells you how hot or cold it is.

· The meat thermometer in the kitchen tells you meat temperature.

· The thermometer in the thermostat tells the heat or air conditioning when to turn on and off.

· The thermometer in the oven keeps the oven at a set hot temperature when it is turned on.

· The thermometer in the refrigerator and freezer maintains a set cold temperature.

· The thermometer in the medicine cabinet measures body temperature to let you know if you have a fever.

The common glass thermometer that you may have in your medicine cabinet is called a bulb thermometer; it is the same type of thermometer that is used outside to measure the climate.

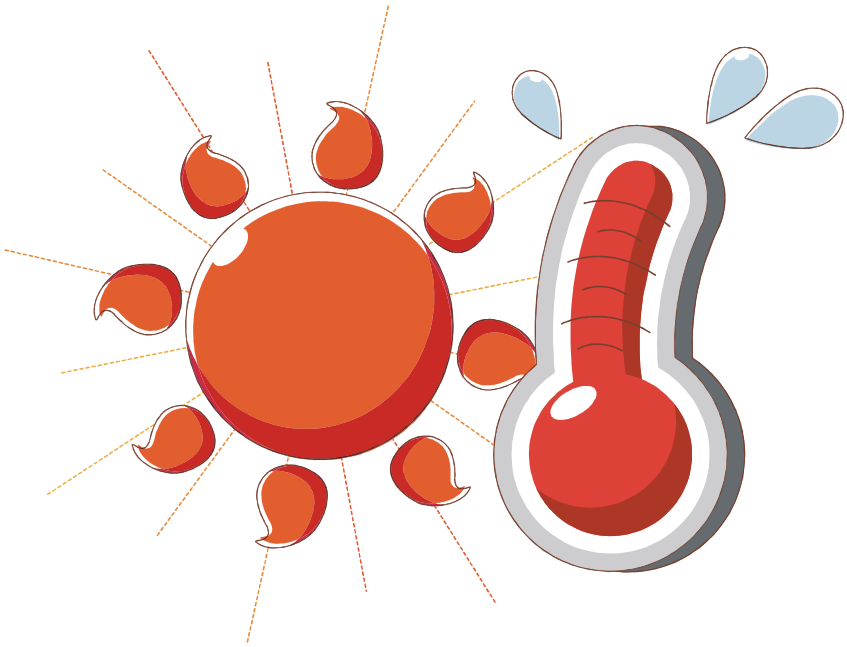
Thermometers work on the principle that the volume of a liquid increases as it is heated and decreases as it is cooled. The bulb thermometer contains a fluid, usually mercury, which expands when it is heated.

When you place the thermometer in your mouth to take your temperature, the mercury in the bulb slowly warms up from room temperature to match your body's temperature. As the mercury becomes heated, it expands, rising up the tube in the thermometer.

After about three minutes, an accurate reading can be taken. Small changes in temperature are noticeable as the liquid rises and falls. If your body temperature is elevated, the mercury will rise up the tube past the 98.6 degree Fahrenheit marking to indicate that you have a fever. If your body temperature is normal, the mercury will rise to right around the 98.6 degree Fahrenheit marking, which is considered to be average body temperature.

What Absorbs More Heat ?

When you're out in the sun on a hot summers day it pays to wear some light colored clothes, but why is that? Experiment with light, color, heat and some water to find out.



What you'll need:

- 2 identical glasses or jars
- Water
- Thermometer
- 2 elastic bands or tape
- White paper
- Black paper

How to do it:

1. Wrap the white paper around one of the glasses using an elastic band or tape to hold it on.
2. Do the same with the black paper and the other glass.
3. Fill the glasses with the exact same amount of water.
4. Leave the glasses out in the sun for a couple of hours before returning to measure the temperature of the water in each.

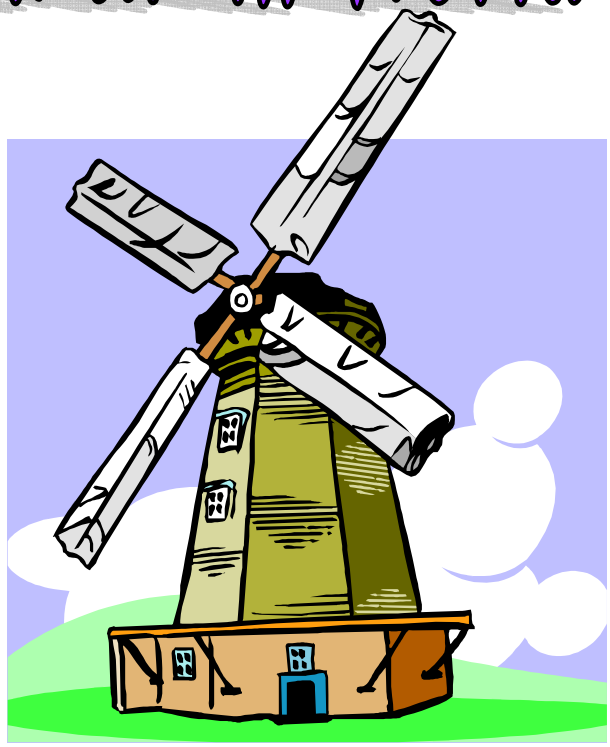
What is happening ?

Dark surfaces such as the black paper absorb more light and heat than the lighter ones such as the white paper. After measuring the temperatures of the water, the glass with the black paper around it should be hotter than the other. Lighter surfaces reflect more light, that's why people where lighter colored clothes in the summer, it keeps them cooler.

How does a Windmill Work?

A windmill is a machine which converts the energy of the wind into rotational motion by means of adjustable vanes called sails.

When these sails turn they themselves make the machine inside the windmill turn.



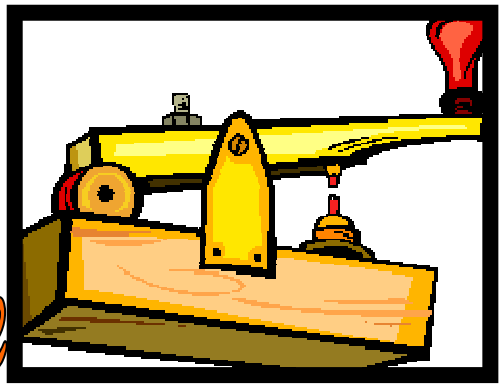
This helps to grind items such as grains.

Windmills have also provided energy to wind pumps for obtaining fresh water from underground or for drainage (especially of land below sea level).

Modern windmills are used to generate electricity.

Means of Communication...

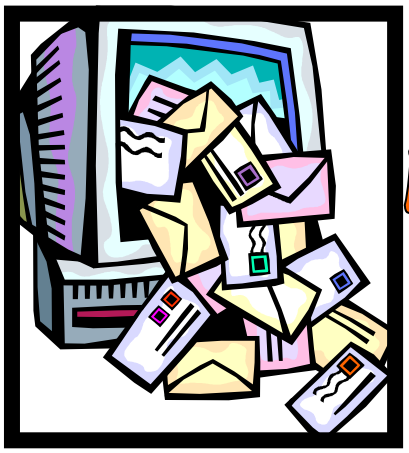
Telegraph



Morse Code

Telephone

Letters



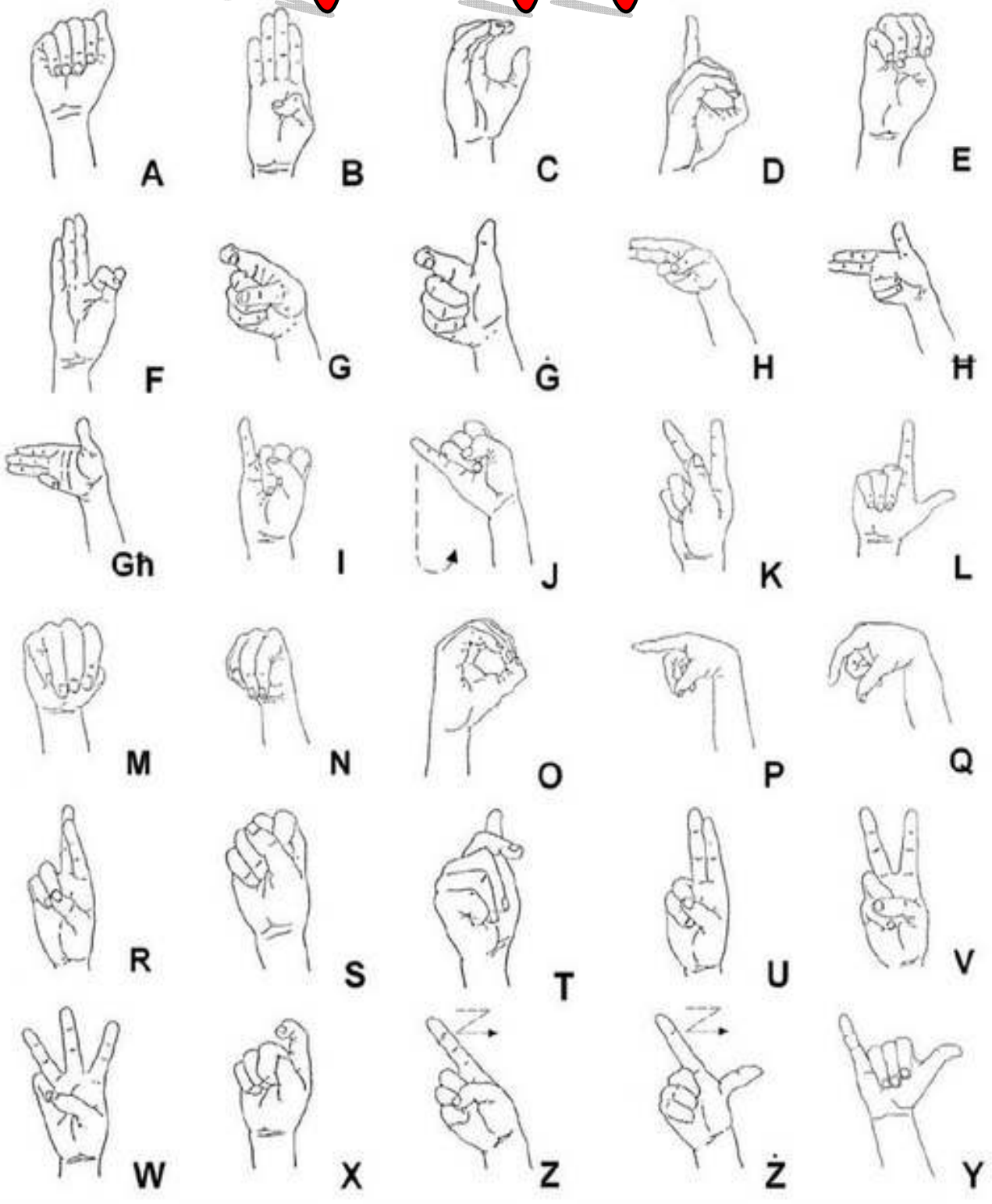
E-Mail

Megaphone

Pigeon

Means of Communication...

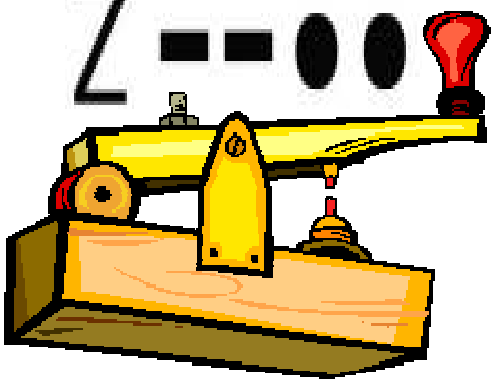
Maltese Sign Language



Means of Communication...

Morse Code

A •-	J •---	S •••
B -•••	K -•-	T -
C -•-•	L •-••	U ••-
D -••	M --	V •••-
E •	N -•	W •--
F ••-•	O ---	X -••-
G --•	P •--•	Y -•--
H ••••	Q --•-	Z --••
I ••	R •-•	



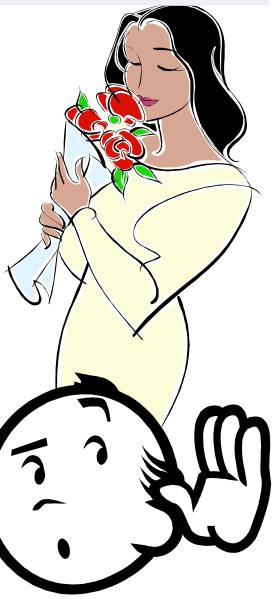
Means of Communication...

The 5 Senses

Touch

Taste

Smell



Hear

See

How Does a Bell Work?

A *bell* is a simple sound-making device.

The bell is a percussion instrument.

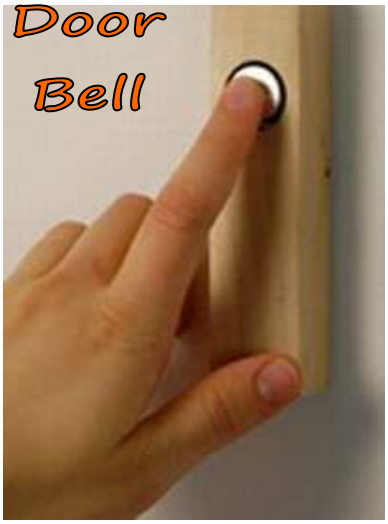
Its form is usually a hollow, cup-shaped acoustic resonator, which vibrates upon being struck.

The striking implement can be a tongue suspended within the bell, known as a clapper, a separate mallet or hammer, or in small bells a small loose sphere enclosed within the body of the bell.

Bells are usually made of cast metal, but small bells can also be made from ceramic or glass.

Bells range in size from tiny dress accessories to church bells 5 meters tall, weighing many tons.

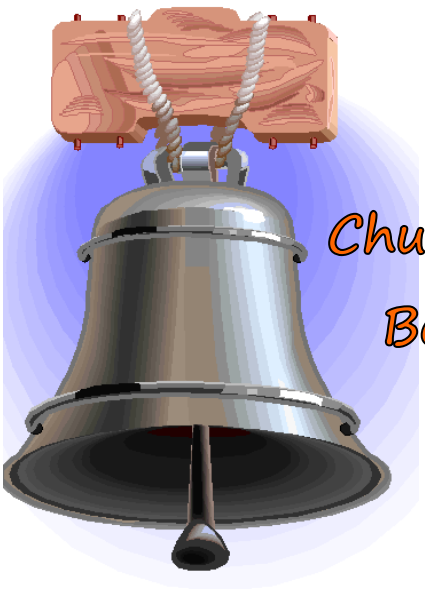
Historically, bells were associated with religious rituals, and before mass communication were widely used to call communities together for both religious and secular events.



Later bells were made to commemorate important events or people and have been associated with the concepts of peace and freedom.

The study of bells is called campanology.

A set of bells, hung in a circle for change ringing, is known as a ring of bells or peal of bells.



Bell Making

What you'll need:

- Plastic Cup
- Ribbon
- Small Christmas tree bauble/bell
- Gold or silver spray
- Items to decorate

How to do it:

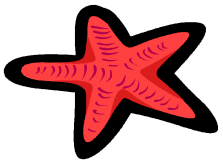
- Paint the cup on the outside and allow to dry
- Make 2 holes in the top.
- Thread one length of ribbon through holes in top of cup and tie off inside cup.
- Take 2nd length of ribbon and attach bauble/bell to hang down.
- Decorate outside of cup with odds and ends
- Hang on Christmas tree

Strange But True!

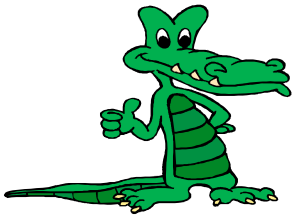
Did You Know that...

- Sneezing with your eyes open is impossible.

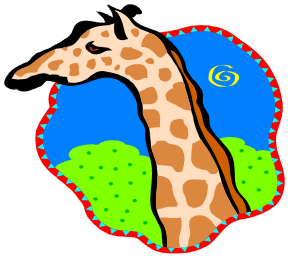
- The ears of a cricket are located on the front legs, just below the knee.



- A cat has 32 muscles in each ear.
- A starfish can turn its stomach inside out.
- A zebra is white with black stripes.



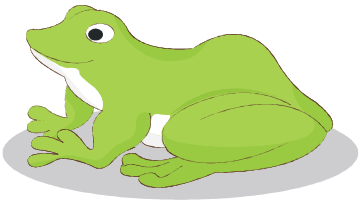
- Crocodiles swallow stones to help them dive deeper.
- Giraffes are unable to cough.



- Sharks are immune to cancer.

- Despite the hump, a camel's spine is straight.
- The leg bones of a bat are so thin that no bat can walk.

- Tigers have striped skin, not just striped fur.
- Certain frogs can survive the experience of being frozen.
- Only humans sleep on their backs.



How does a ferris wheel work?

The first ferris wheel was designed by George W. Ferris, a bridge-builder from Pittsburgh, Pennsylvania USA. It was considered an engineering wonder, the largest single piece of forged steel ever made up until that time.

George W. Ferris built the Ferris Wheel for the 1893 World's Fair, which was held in Chicago to commemorate the 400th anniversary of Columbus's landing in America. The Chicago Fair's organizers wanted something that would rival the Eiffel Tower. Gustave Eiffel had built the tower for the Paris World's Fair of 1889, which honored the 100th anniversary of the French Revolution.

Finding a suitable design proved difficult. He had an inspiration and scribbled the design for the Ferris Wheel on a napkin during the dinner.

The structure of a ferris wheel can be compared to two bicycle tires. The wheel itself is supported on the inside by tension spokes. These spokes are in place to keep the wheel from collapsing. The two wheels are connected by tension spokes and metal bars or pipes.

The seats of the wheels are positioned on the connecting pipes and are hung so that they swing freely. Gravity keeps the seats from going upside down.

Motors that are connected to or near the wheels keep the wheel in motion. They turn in a series of gears, belts, and pulleys all connected to each other.

The London Eye in England is the largest Ferris wheel in Europe, standing at a height of 135 metres (442 feet).

Make Your Own Ferris Wheel

What you'll need:

- Cup Cake Holders
- Thick cardboard
- Butterfly Pins
- Craft Knife (to be handled by an Adult)
- Paints to decorate

How to do it:

- Use a plate and draw a circle around the plate.
- Ask and Adult to help you draw the inside of the wheel in the circle and cut out the spokes of the wheel.
- Cut a rectangular piece of cardboard and fold into a triangle as shown in the picture.
- Decorate the wheel with the paints.
- Secure the wheel to the cardboard with butterfly pins.
- Paint over the cup cake holders.
- Secure the cup cake holders onto the wheel.

Wheelchairs are cool...

(Excerpt from www.kidshealth.org)

Daniel was dreading the first day at his new school. Any kid would be a little nervous to be starting at someplace new, but Daniel was extra-worried because he uses a wheelchair. He wondered how the other kids would react. Would they stare and make fun of him?

On the first day of school, he rolled into his new classroom and met his teacher. She asked if it would be OK to talk to the class about his wheelchair and Daniel agreed. Whew! He felt so relieved when she did. Mrs. Boyle told everyone that wheelchairs are just a good way of getting around if a person has trouble walking. "It helps Daniel be independent," she said.

What Does a Wheelchair Do?

A motorized wheelchair is nothing like the old-fashioned kind you see in old movies. No longer are wheelchairs heavy and difficult to maneuver. Today's wheelchairs are lighter, faster, and easier to use. Many use computer technology and offer better support for a person's back, neck, head, and legs. They also include safety features such as automatic brakes and anti-tipping devices.

Power wheelchairs have many advantages for kids who need them. Electronic controllers can help a kid who uses a wheelchair drive smoothly, brake easily, and make the wheelchair move with the touch of a hand or even by puffing on a special straw! Some hand controllers look like a joystick used to play video games and are easy to operate.

Who Needs a Wheelchair?

Kids can need wheelchairs for many different reasons. Some have had injuries either to their legs or spine or other disabilities.

What's Life Like?

For kids who depend on a wheelchair life is different. They'll need to learn how to use it in lots of different situations — home, school, vacation. In some cases, it will be hard using the wheelchair or might take a long time. That can be frustrating, but wheelchairs are getting better all the time.

Wheelchair users can shop, work, go to school, play, drive cars — even compete in special sports competitions. But they also must look for handicapped-accessible buildings, special ramps, parking places and environments that are wheelchair-friendly.

Not everyone is as accepting as Daniel's teacher, so life can be hard for someone who uses a wheelchair.

A person may be teased, feel left out, and get treated differently than other kids. The next time you see a kid using a wheelchair, try to be a friend. Usually, kids in wheelchairs don't need to be pushed around, but they might need other kinds of help. Opening a door or clearing the path will be appreciated.

But the best help of all is to be kind and friendly and not to tease or stare.

People who use wheelchairs are the same as everyone else. ***They just get around on wheels instead of feet!***

Xylophones & Glockenspiels

The *Xylophone* is a musical instrument in the percussion family that consists of wooden (not steel) bars struck by mallets. Each bar is tuned to a pitch of a musical scale.

A *Glockenspiel* is a musical instrument pertaining to the percussion family as well. It is composed of a set of tuned keys arranged in the fashion of the keyboard of a piano. In this way, it is similar to the xylophone; however, the xylophone's bars are made of wood, while the glockenspiel's are metal plates. The glockenspiel, moreover, is usually smaller and higher in pitch.

How does your Heart work?

The heart is one of the most important organs in the human body, continuously pumping blood around our body through blood vessels.

Your heart is located in your chest and is well protected by your rib cage.

The study of the human heart and its various disorders is known as cardiology.

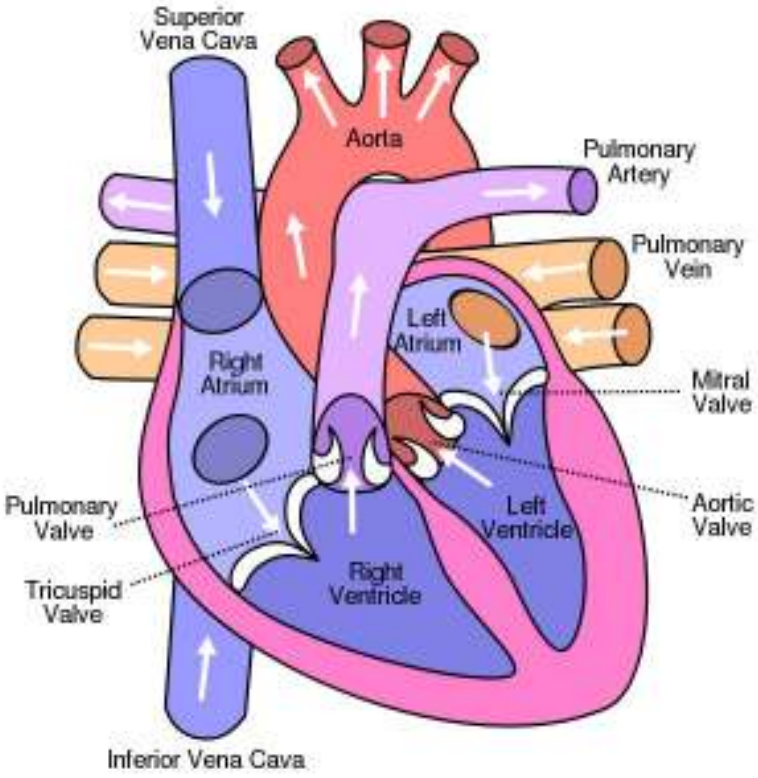
The heart is made up of four chambers, the left atrium, right atrium, left ventricle and right ventricle. There are four valves in the human heart, they ensure that blood only goes one way, either in or out.

Blood that leaves the heart is carried through arteries. The main artery leaving the left ventricle is the aorta while the main artery leaving the right ventricle is the pulmonary artery.

Blood going towards the heart is carried through veins.

You might have felt your own heart beating, this is known as the cardiac cycle. When your heart contracts it makes the chambers smaller and pushes blood into the blood vessels. After your heart relaxes again the chambers get bigger and are filled with blood coming back into the heart.

You might have watched television shows or movies where a patient in a hospital is attached to an electrocardiogram (ECG). You might recognize it as the machine with a line moving across a screen that occasionally spikes. This machine can measure the electricity going through a patient's heart. A doctor can use the information to know when a patient is having heart rhythm problems or even a heart attack.



How does a Watch work?

Clocks and watches are both devices which we use for telling time!

Since we divide days into hours, minutes, and seconds, the job of a watch or a clock is to keep track of how many of them have gone by, which is how the clock or watch tells you what the time is!

It's easy to see that there are lots of different kinds of clocks and watches. For example, some have a face with moving hands that point to numbers and show the time, while others have digital displays that read the time as consecutive numbers showing hours followed by minutes.

In spite of how different they can look, almost all clocks are made using a few same basics:

- A device that gives it power
- A steady system for measuring time
- A display to show you the time!

Today, many clocks and watches use a battery or electric plug for their power. To measure the passage of time, some clocks use a pendulum (like a steadily swinging weight), a moving gear, or a quartz crystal that gives off controlled pulses. As these mechanisms steadily count, the time display inches forward and tells you the hour, minute, and seconds of the day!

Games

LIGHT THE NAME

Switch off all lights in the hall, take the torch and light it on someone. The children have to shout out the name of the beaver being lit.

TRAINS

Form the Beavers into pairs with one Beaver 'left over'. Each pair forms a train, with the front one the engine and the second one the carriage. The carriage to clasp the engine from the shoulders or waist. The trains then set off chuff-chuffing around. The 'left over' Beaver tries to grab on to the back of one of the trains. If successful the engine of that train has to drop off and grab on to the back of another train. Lots of noise and fun

BLOW CIRCLE

Divide the Colony into small teams, each team to form a circle by joining hands. Then give each team a feather or a balloon and see which one can keep the feather or balloon in the air the longest just by blowing it. Beavers must not let go of each other's hands.

BLOW TENNIS

This is similar to the game above but played with two teams only. Tie a string about shoulder high across the room. The teams stand one on each side of the string and a balloon or a feather is put into play. The teams have to blow this back and forth over the string. The team that lets it fall to the ground on their side loses.

BLOW PING PONG

Very similar to the previous two games. This time it is played around a table. It is only suitable for a small group. Have two teams, members of which kneel on either side of the table. A ping-pong ball is placed in the centre of the table and each team tries to blow it off the table on the opposite side.

MOTORWAY CRASH

Beavers sit in sixes in a circle. One beaver from each six is given the name of a car (eg. Ford, Nissan, Rolls, Jaguar, etc.) When that name is called out those boys get up and run round the circle Various calls are made that the beavers have to react to:

Join the M1- Change direction
Puncture- Hop
Accelerate- Start running
Steep Hill- Walk
Fog- Pidgin Steps
Crash- Collect object

When 'Crash' is called the beavers run back through their own place and into the middle of the circle to pick up some item placed there. Once 'Crash' has been called the beavers can't change the direction they were running in.

CLOTHES PIN RELAY

Divide into teams. Each team member must run from the starting line to a team bottle placed a distance away, attempt to drop a wooden clothes pin into the bottle (Each boy has only one attempt to get the clothes pin in the bottle) and run back to tag the next team member, who then repeats the action. The rules are to hold the clothes pin with a straight arm at shoulder height or with a bent arm at waist height (as long as all do it the same way. When all the teams are done the team with the most clothes pins in their bottle wins the game.

ROCKET RELAY

The Lodges line up with a chair at the head of each, facing away from the Lodge. The chairs are 'launching pads' and the first Beaver or 'rocket' stands on the chair awaiting the countdown. When the leader reaches zero, the 'rocket' blasts off round the room, touching all four walls, and returns to the 'launching pad' where the next 'rocket is waiting to be launched. The first 'rocket' lets off the second and returns to his Lodge.

STACKING CANS

Lodges stand in lines. They have to run to the end of the hall in relay fashion and each one add a can to the stack. The winning team is the first one back with a completed stack and all their team standing to attention.

Variation:
Teams work against each other in pairs - One team stands at the side throwing bean bags or dusters at the piles of cans, the other team attempts to build up the pile. After swapping over the team with the fastest time wins.

TUNNEL RELAY

The team members stand in a line one behind another with their legs apart. The person at the back of the team crawls through the legs of the other members and then stands at the front, legs open. The next team member then goes. When everyone has crawled through (team is back in order) the team has finished.

Variation:
Instead of crawling through a ball is passed backwards between the legs of the beavers. This will require the person at the end of the line to run to the front when he receives the ball.

WATER RELAY RACE

Transport water from point A to point B holding water can above head. Water can has small nail holes in bottom edge resulting in a shower effect on the carrier. The Team that has the most water average per den wins.

BOAT OR CAR RACE

This is an oldie but very good when you have a large group to keep amused and interested. You will need four toy boats or cars. These are attached to long lengths of string which are wound around pieces of dowel or broom handle. Rotating the dowel winds on the string and drags the toy car or boat along the floor. Split the group into two teams and sit each team on opposite sides of the hall. Choose the biggest person from each team, explaining to the children, that these people are going to try and win points for their team.

CLOTHES' PEGS PEGGING

Have two small groups at the front. This time they have to peg clothes pegs on a length of line. The rest of the kids cheers their team on. Two people on each team hold an end of the line the third person dashes to pick up the pegs and put them on the line. You can make it more difficult by using coloured plastic pegs and getting them to peg them on in a certain order. The team with the most pegs correctly place in a given time are the winners.

FIND THE BELL

Have the group sit in a circle. Choose one person to sit in the centre of the circle. The leader gives the bell to one of the beavers, who begins to pass it around the circle. The object of the game is to pass the bell quietly so that the person in the middle cannot guess who is holding the bell. Beavers may not silence the bell by holding the clapper - they have to try to pass it carefully enough so that it does not ring.

FLOATING BOMB

Each six defends a quarter of the room and a feather is released at the centre by Keeo. The Beavers have to blow to keep the feather or balloon in the air, but if it lands in their portion they have been hit.
WARNING: Allergy Alert!! When using Feathers keep in mind that some children/ leaders might be allergic to them.

MUG RACE

Fill large plastic mugs with water and place them at either side of the hall. Distribute a mug to each person. The team must transfer the water from one mug to the to the next. Could be marked in several ways: Time to move fixed amount of water with penalty for water dropped, or volume of water moved in fixed time.

WATER BALLOON CATCH

Using a catapult the leaders launch water balloons toward the objective. The beavers will be given a huge large of material (a double bed sheet) will do. The Balloons are launched and the Colony has to try to catch them. This game can be done by teams or as a whole colony against the leaders. Loser gets wet !!!

Visits

Visits

Local Fire Station

Watchmaker

A Laboratory

A Windmill