

Now you have earned the KAB SCOUT ARTIST Badge.
Check what you learned and did:

Mixing colors

Tracing

Keeping a Drawing book

Illustrating a story

Making a Greeting card

Modeling

Collage making

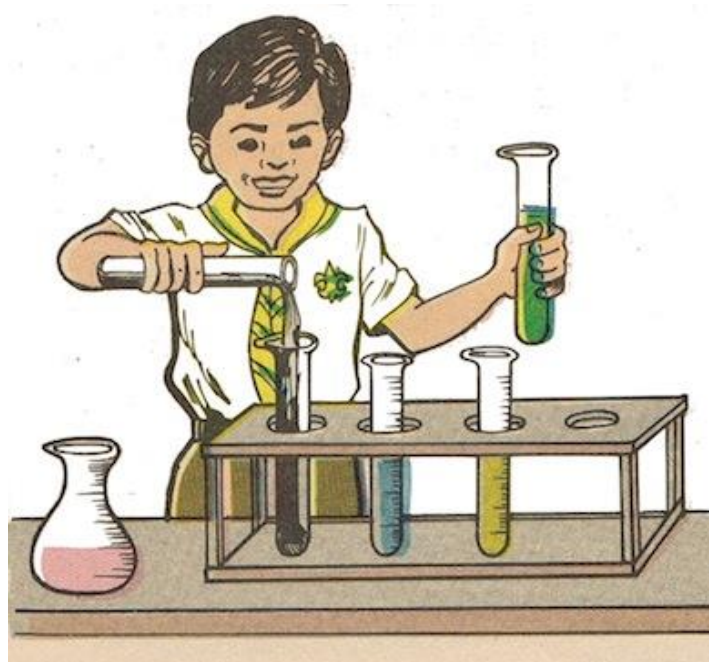
Making props

KAB SCOUT SCIENTIST

A scientist discovers many interesting things.

A scientist discovers by doing experiments.

Would you like to try some?



1. Make a simple compass.

You will need:

a big needle magnet;

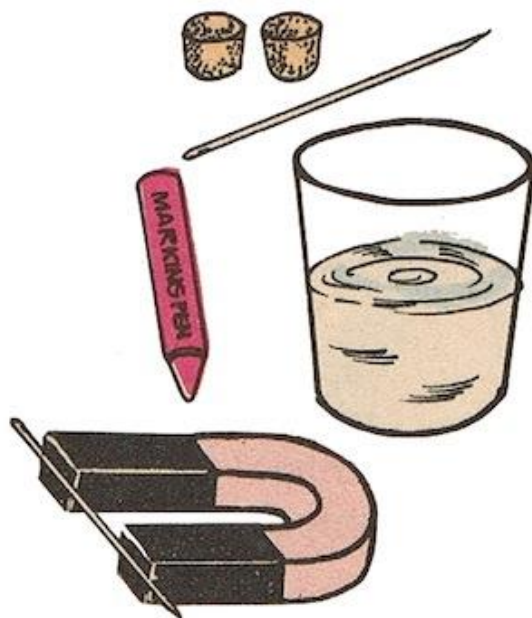
two corks;

glass dish of water;

red marking pen

Magnetize the needle.

Then stick a small cork on each end of the needle.



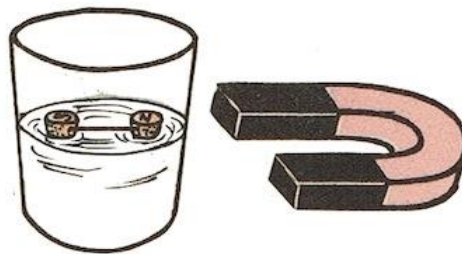


Float the needle and the cork in the dish of water.

Use the magnet to find the north-pointing and south-pointing ends of the needle.

Mark with red pen the north-pointing end of the needle.

Find the other directions with your compass.



Tell why the needle points to the North.

2. Make a kite and fly it. Explain why it stays in the air.



You will need:

2 pieces of bamboo sticks about 60 cm long, about .9 cm. wide, and .3 cm thick;

Japanese paper or cellophane;

paste or glue;

string;

strips of cloth 5 cm and 15 cm long

Fasten the two bamboo sticks together.

Wind string around the crossing and tie it tightly.

Fasten a string around the ends of the sticks.

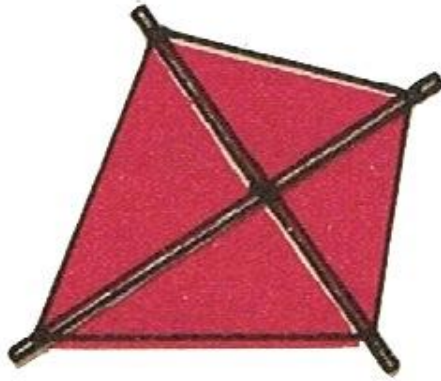
This will form the outer edge of the kite.



Add glue to make the joint strong.

Don't use tacks.

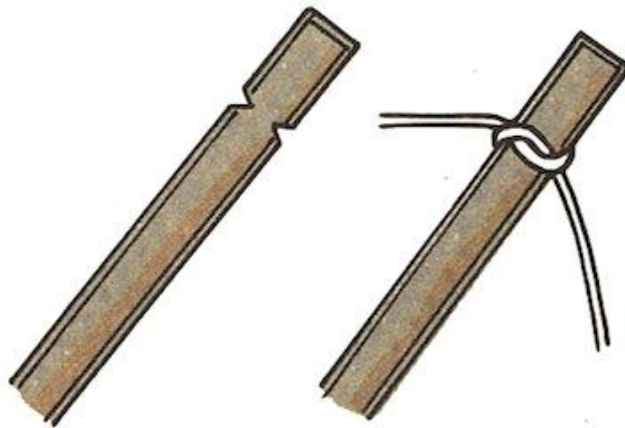
They might split the wood.



To hold the string in place, cut notches in the sides of the sticks near each end.

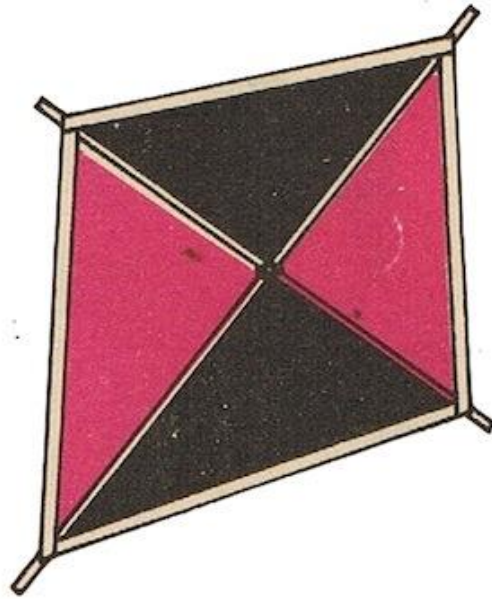
Tie the string to each stick at the notch with a single loop knot.

Pull the string tight between the ends of the sticks as you tie the knots.



The distance from the end of one stick to the next should be about 42.5 cm.

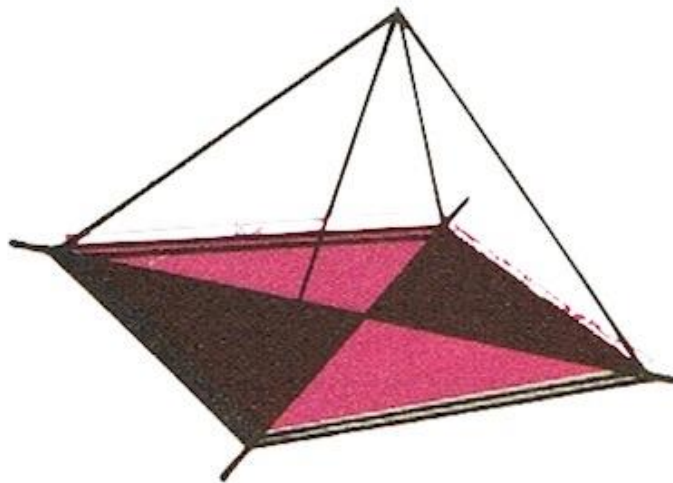
Cut the covering material so that it extends about 5cm beyond the area enclosed by the string on all sides.



Fold the edges over the string all around the kite.

If the covering is made of paper, fasten the folds with paste.

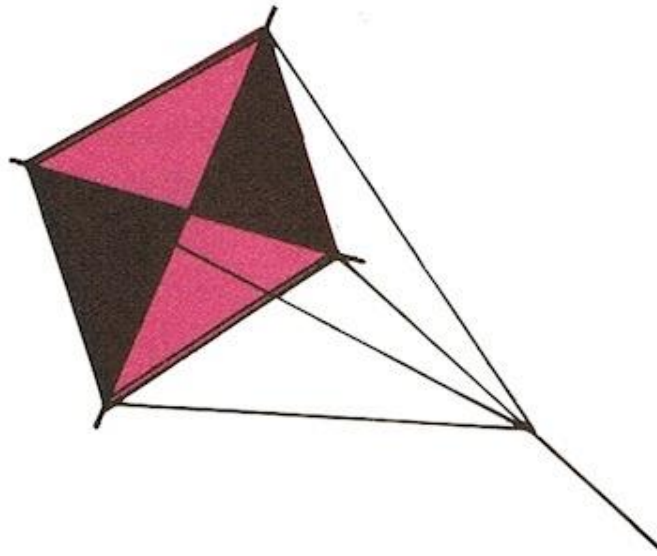
If you use cellophane, use transparent tape instead of paste.



The bridle is the arrangement which fastens the kite line to the kite.

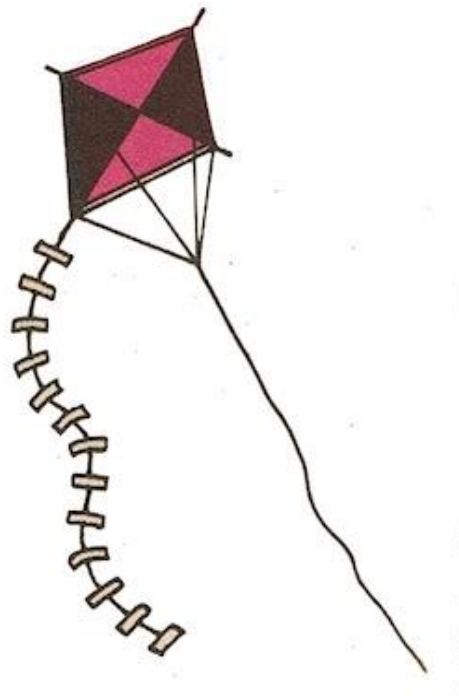
Fasten a short string to each corner of your two-stick kite.

Bring the strings together so that they form a sort of pyramid.



Tie the kite line to the point at which the strings meet.

Change the length of the strings of the bridle to find the best fastening for your kite.



All flat kites need tails.

Otherwise the kite would slip from side to side as the wind changes direction.

Make a long tail first, shorten it little by little until the kite flies well.

As the wind conditions change, change the length of the tail.

To make a tail, tie strips of cloth on a single length of string.

Keep them about 15cm apart.

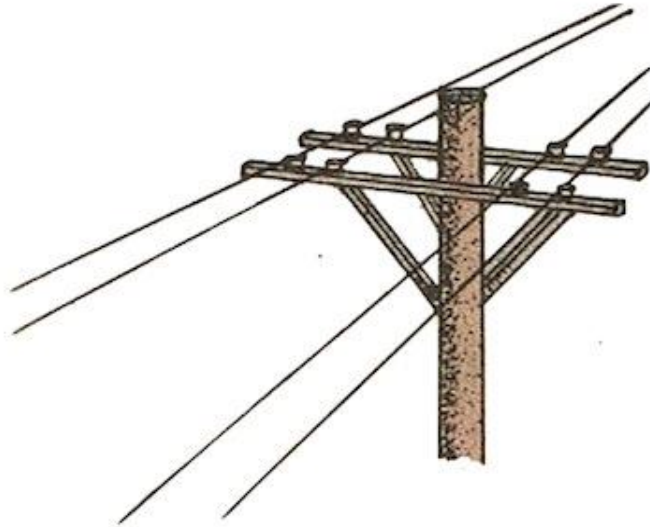
Knot the string around the center of each cloth strip to hold it in place.

Here are some rules to follow when flying your kite.

- a. Never use wire for a kite string.



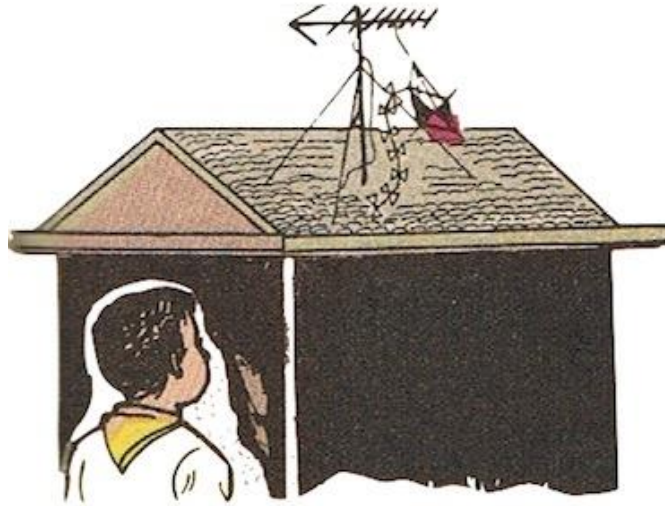
- b. Don't fly your kite near electric wires. (In case your kite gets caught in electric wires. Leave it there).



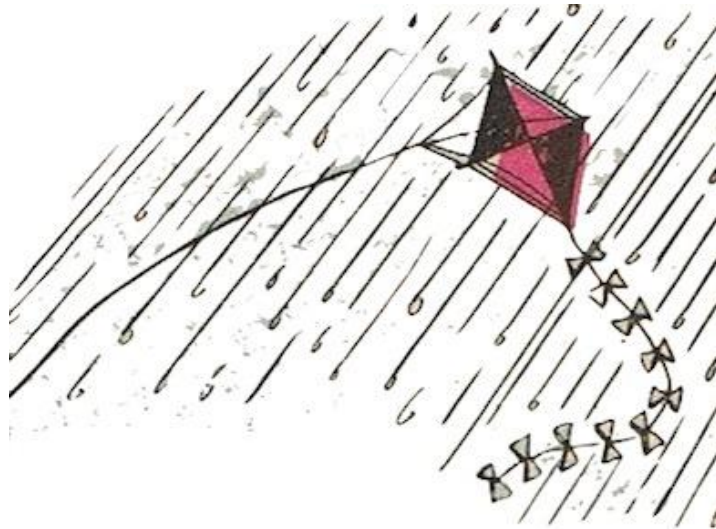
c. Don't fly your kite in city streets. Fly it in a vacant lot, playground, open field.



d. Don't climb high trees or rooftops to rescue a kite that is caught.



e. Never fly your kite in the rain.



3. Make a toy telephone.

You will need:

stout string about 9 m long;

2 empty tin cans

Punch a hole in the bottom of the tin cans.

Thread the string through the hole of each tin can.

Now, tie an overhand knot at the ends of the string.

The knot will keep the string from slipping back through the hole.



Ask another KAB Scout to take one of the cans.

Tell him to walk away from you until the string is taut.

Ask him to speak into his tin can, while you hold yours to your ear.

Talk to each other through your toy telephone.

4. Do the following experiments about air.

(Note to the Leader: Other experiments can be used.)

a. Air expands when heated.

You will need:

a bowl of ice cubes;

a bowl of hot water;

a soft drink bottle;

a balloon



Place the bottle in the bowl of ice cubes.

Wait for the bottle to become cold.

Then slip a deflated balloon over the neck of the bottle.

Remove the bottle from the ice.

Wait for about five minutes until the bottle returns to room temperature.

Now place the bottle in a bowl of hot water. See the balloon become inflated.



Heat expanded the air within the bottle.

b. Air occupies space.

You will need:

a handkerchief;

a drinking glass;

sink or large basin full of water

Push the handkerchief firmly into the lower half of the glass.

The handkerchief should not fall out when the glass is turned upside down.

Fill the large basin or sink with water.

Push the glass, open end down, below the surface of the water.



Why did the handkerchief remain dry?

Air in the glass occupies space. It prevents the water from rising into the glass.

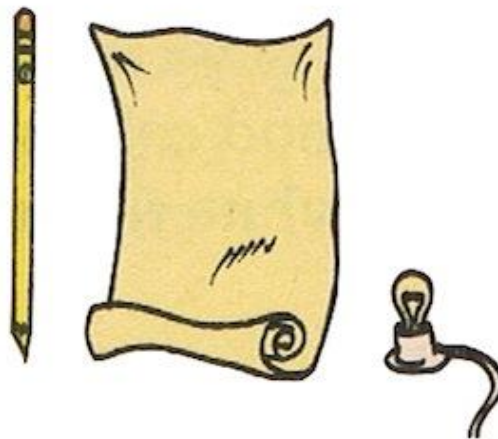
c. Air moves things.

You will need:

a piece of paper;

a pencil;

electric bulb or lamp



Cut a spiral out of the piece of paper.



Balance your spiral on the point of the pencil.

You may have to press the paper down lightly upon the pencil point.



Do you know why your spiral spins around the pencil?

The rising warm air is pushing the spiral around.

5. Make your own colored flowers.

You will need:

a glass jar with water;

food coloring;

white flowers

Pour several drops of food coloring into the jar.



Put the flowers in the jar. After 2 to 3 days the flowers will change color.

Why do the flowers change color?

Flowers suck up water through their stems.

The water goes into the leaves and petals.

You can't see this, but food coloring shows through white petals.
You have earned the KAB SCOUT SCIENTIST Badge.

Check what you did:

Compass

Kite

Telephone

Experiments

Colored flowers

BUSY HANDS AT WORK

Look at your hands.

You can make many wonderful things with your hands.

You can also make many useful things with them.

Try these.



1. Make a neckerchief slide.

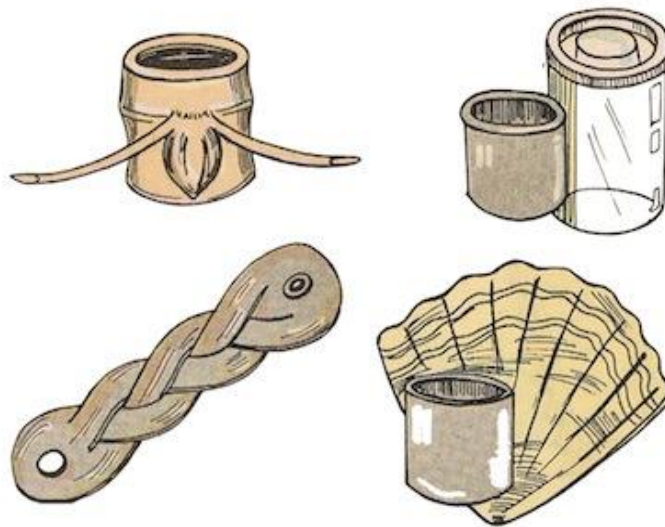
Use any material that you can work with.

Leather

Bamboo

Plastic

Seashell



Give a brother Scout one slide.

2. Make a bookmark.

Use any material you like.

Cartolina

Plastic

Tin



Give a bookmark to a KAB Scout friend.

3. Make two useful articles out of any the of the following:

abaca

rattan

bamboo

shell

coconut

thread

metal

wire

plastic

wood

or any material that is common in your place

or any recycled material, like:

empty cartons
plastic bottles
matchboxes
spools
and others



4. Make something by folding paper or coconut leaves.

PAPER HAT

You will need:

a piece of paper (newspaper, brown wrapping paper, or gift wrapping paper) 30 and 1/2 cm by 40 and 1/2 cm;

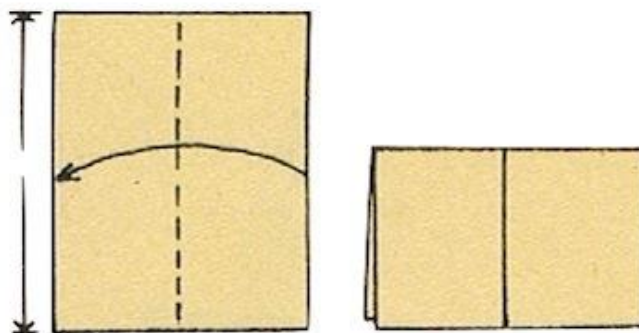
ruler;

pencil;

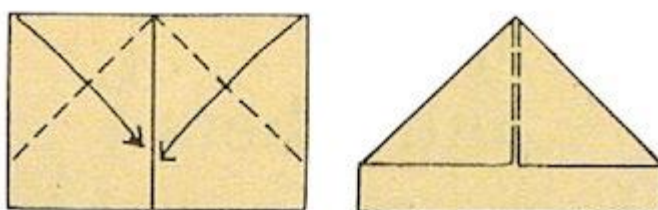
scissors;

transparent tape (optional)

a. Fold the paper in half the long way to crease it. Unfold it.



b. Now fold the paper in half across its width (so it measures 30 and 1/2 cm by 20 cm).



c & d. Fold the top corners down to meet at the center crease.



e. Fold the bottom up on each side to make the brim for the hat. You can tuck a tape in the corners. Spread open the bottom and put on your hat.

PAPER CUP

You will need:

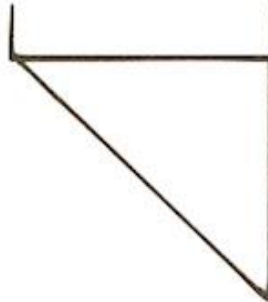
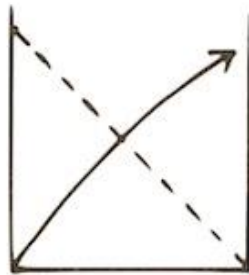
coupon bond;

scissors;

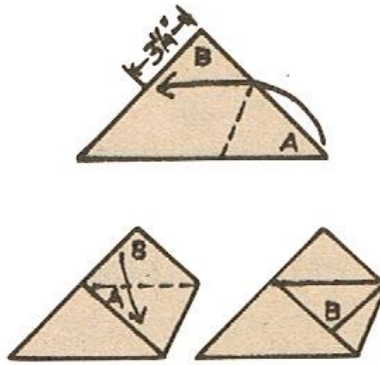
ruler;

pencil

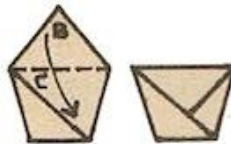
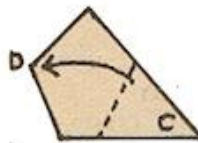
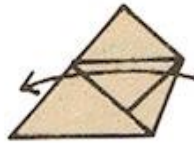
a. Fold a bottom corner up to one side. Cut the extra paper off the top. Now you have a big folded triangle



b. With the fold at the bottom, mark the left edge 8 cm from the top. Fold point A over to the mark.



- c. Fold one layer of point B down toward you.
- d. Turn the paper over.
- e. Fold corner Cover to point D.
- f. Then fold the triangle (B) down toward you.



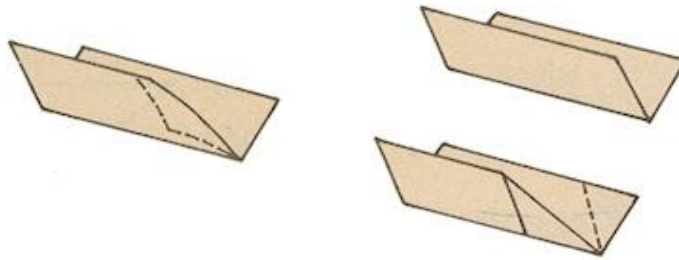
Open the cup at the top and it is ready to use.

PAPER AIRPLANE

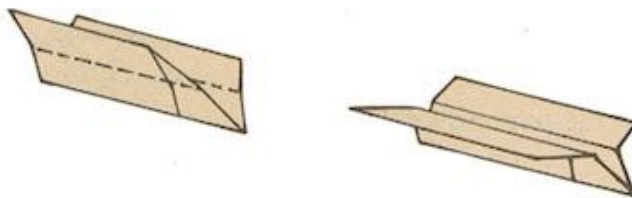
You will need:

coupon bond paper;

paper clips



- a. Fold the paper in half the long way.
- b. Fold one corner out and back so that it touches the bottom edge.
- c. Do the same with the opposite corner. Fold it back so that it touches the bottom on the opposite side.
- d. Make the wings by folding in half down the entire length of both sides of the airplane.
- e. Open the Wings so they point slightly upward.



- f. Fasten one or two paper clips to the bottom of the plane, near the front.
- g. The weight of the paper clips will help your glider fly farther. If you want a longer flight, add more paper clips.
- h. You can also move the clips until they are in the right places.

You have earned the BUSY HANDS AT WORK Badge.

Check what you did:

Slide

Bookmark

Useful articles

Paper folding

TYING THINGS UP

KAB Scouts have special ways of tying things up.

KAB Scouts know different knots.

They also know when to use each.



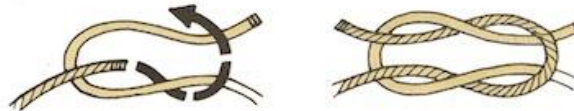
1. Keep a rope from snarling.

Get two pieces of rope 1 cm in diameter.

Tie an overhand knot at each end.



2. Tie two pieces of rope together with a SQUARE KNOT.



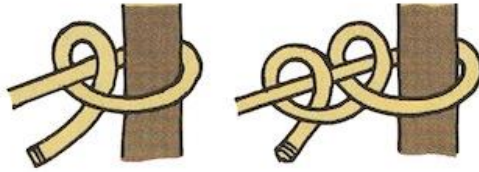
Untie the ropes and then tie them together with a SHEET BEND.



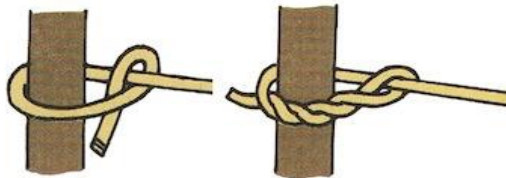
3. Show to the members of your Color Group how to tie a rope to a post or pole with a CLOVE hitch.



Untie and fasten it again with TWO HALF-HITCHES.



Then tie it with a TIMBER HITCH.



Explain the uses of these knots.

4. Hank a rope.

This is a way of winding up a long rope to keep it tidy when not in use.

First hank the rope by winding it round and round your elbow and left thumb.

Now you must tie up the end so that it doesn't unravel.



Take the end of the rope across the front of the hank. Now pass it right round the back of the hank. Now tuck it under itself and up through the loop of the hank. Pull tight.

To tie a short rope, like the ones you use for knot tying, first fold the rope into four. Then hold it in place by tying a simple knot.



You have earned the TYING THINGS UP Badge.

Check what you did:

Keep rope from snarling

Square knot

Sheet bend

Clove hitch

Two half hitches

Timber hitch

Hanking a rope

DUCKS OR CHICKENS

Ducks and chickens make good pets. They can also be a source of money for your family.



- 1. With your family, own a pen of chickens with not less than 10 hens and one rooster, *OR*
Own a flock of ducks with not less than 10 ducks and one drake.**

2. Help in feeding the ducks/hens.

Keep your hens healthy.

Give them a balanced ration every day.

You can buy poultry feeds from the store.

Remove the sour feeds before putting new feeds in the feed hoppers.

Don't feed the chickens decayed or spoiled feeds.

These may make them sick.

Help in keeping the pens/poultry house clean.

This will keep the flocks healthy.

You can do these:

- Sweep the cobwebs away.
- Sweep the floor of the poultry house.
- Cut the tall grasses in the yard. Mites might lay eggs there.
- Keep yourself clean. Wear clean clothes when going to the poultry house.

3. Keep a cost account record of your poultry expenses.

It is important to keep a record of how much you spent for your poultry.

This will tell you if you are gaining or losing.

You can keep an Egg Record, a Chick Record, and the Itemized Record.

Help your parents fill up the record.

Here are examples of the records you and your family can keep.

EGG RECORD

| Date | Dozen | Box | Total |
|------|-------|-----|-------|
| | | | |
| | | | |
| | | | |
| | | | |

CHICK RECORD

| Date | Group | No. of Chicks | No. of Days | | | | Maturity |
|------|-------|---------------|-------------|--|--|--|----------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

4. Make a report at the end of six months.

You have earned the DUCKS AND CHICKENS Badge.

Check what you did:

Poultry raising

Feeding the chickens/ducks

Keeping the pens/poultry house clean

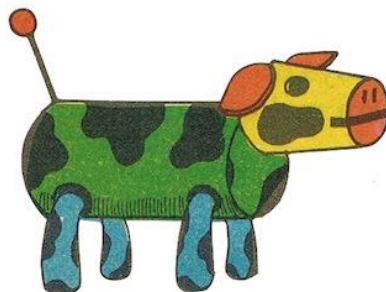
Record keeping

TOYCRAFT

What toys do you have? What toys do you love to play with? You can make your own toys.



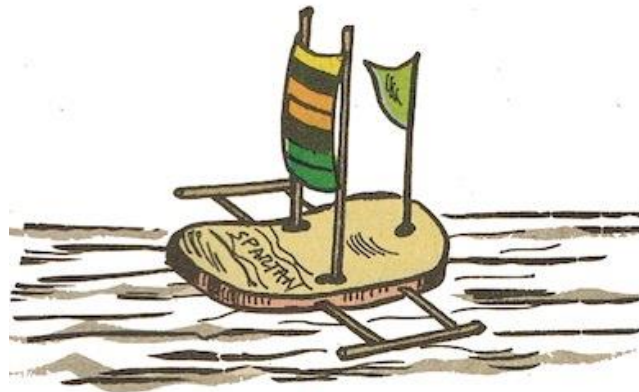
1. Make a toy animal. Use any material found in your place.



2. Make a toy out of milk cans.



3. Make a toy boat. Sail it in water.



4. Make another toy. Use any material you like.



You have earned the TOYCRAFT Badge.

Check what you did:

Toy animal

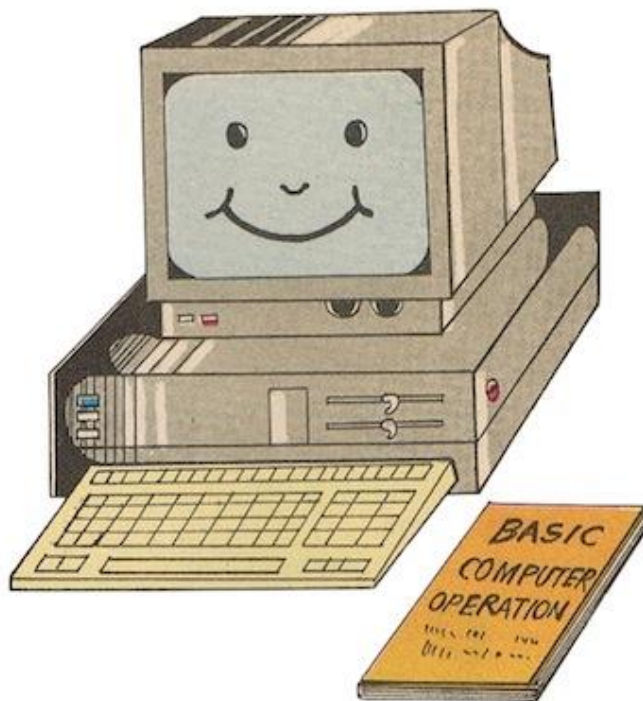
Toy cart

Toy boat

Other toys

COMPUTER FUN

Computers are fun. You can do many things in a computer. You can also play computer games.



1. Visit a place where computers are used.
Find out what they are used for.
Tell your Color Group members.

2. Learn the main parts of a computer.
Learn how to operate it.

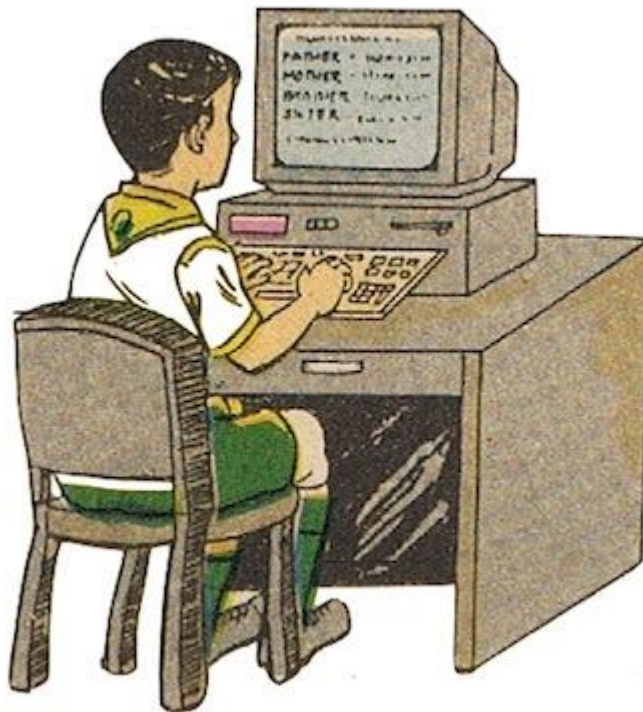
The computer is just like you.

Your body is made up of different parts.

Your brain controls your body parts.

The computer is also made up of different parts.

These parts are controlled by a boss.



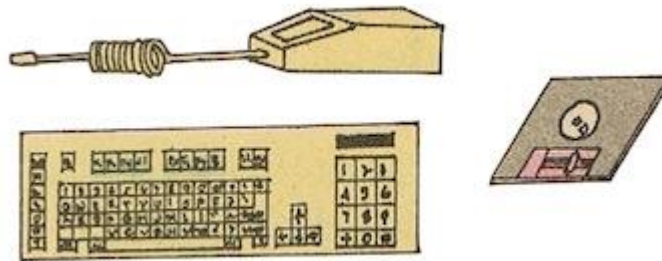
The parts that you can see and touch are called the computer hardware. It includes:

a. Machines that get information into the computer.

These are called input devices.

These input devices are:

- the hand control on a video-game;
- a punched card reader;
- a typewriter-like keyboard.

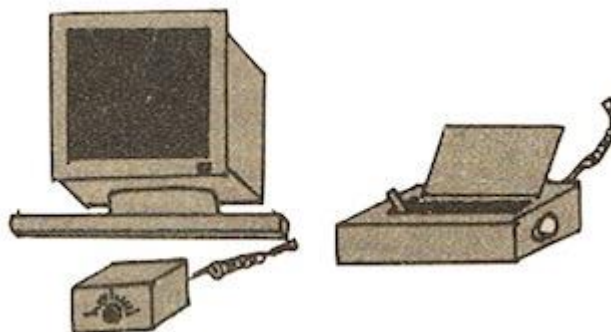


b. Machines that display or tell information from the computer.

These are called Output Devices.

The output devices are:

- a tv screen;
- a printer;
- a mechanical voice box called a speech synthesizer.



The other parts that are hidden inside the machine are:

a. Central Processing Unit – This adds, subtracts, multiplies, and divides. It can also tell if a statement is true or false.

b. Memory – The computer keeps its instructions and other information here. These include:

- chips
- magnetic tapes that look like recording tapes
- disks that look like records



3. Play a game on a family computer.

4. Type your name and address on the computer.

Type the names of your family members.

Type the names of the KAB Scouts in your Color Groups.

Have it printed.

You have earned the COMPUTER FUN Badge.

Check what you did:

Visit place where computers are used

Learn Parts of a computer

Play Computer game

Use the computer

SAFETY WITH MEDICINES

Medicines are important.

They make you well when you are sick.

You should be careful with medicines.



1. Practice these safety rules about medicines.

a. Medicines are not playthings.

Don't play with medicines.

Keep them out of reach of small children.



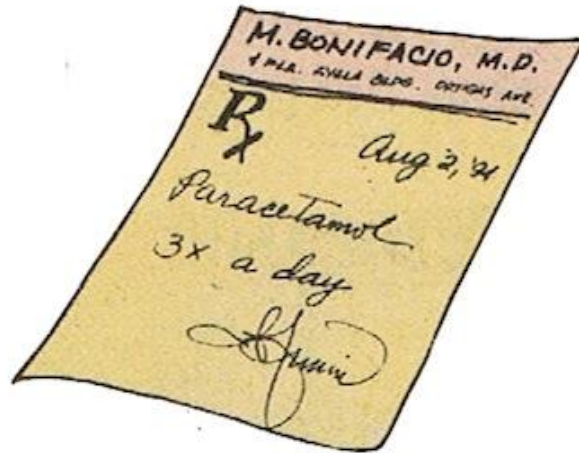
b .Take medicine under adult supervision.

Don't take medicine by yourself.



c. Take medicine prescribed by a physician.

Follow instructions given by the physician.



d. Never accept any food from strangers.



2. Clean your medicine cabinet under adult supervision.

Look for the expiry dates of medicines.

Empty expired liquids and throw tablets in the toilet bowl.



Make a list of medicines that need to be changed.

Arrange together medicines for external use.

Label bottles whose labels are not clear.



You have earned the SAFETY WITH MEDICINES Badge.

Check what you did:

Learned Safety rules

Cleaned the medicine cabinet

THE SOUND OF MUSIC

It's nice to listen to music.

Music can make you happy.

It can also make you sad.

Music is an important part of a KAB Scout's life.



- 1. Make a scrapbook of KAB Scout songs you have learned.
You may draw pictures about each song.**



- 2. Make a musical instrument.
Use any materials in your place.**

Bamboo castanets
Bottle cap tambourine
Bottle xylophone
Coconut shells
Bamboo sticks



Play a tune on your instrument.

You and other members of your Color Group may make up a toy orchestra.

**3. Invent your own song.
Teach the song to your Color Group.**

Write the song on a clean sheet of paper.

You have earned the SOUND OF MUSIC Badge.

Check what you did:

Musical instrument

Scrapbook

Original song

For the Leader: Orientation to the Water and Water Games

1. Can you...

...walk across the water?

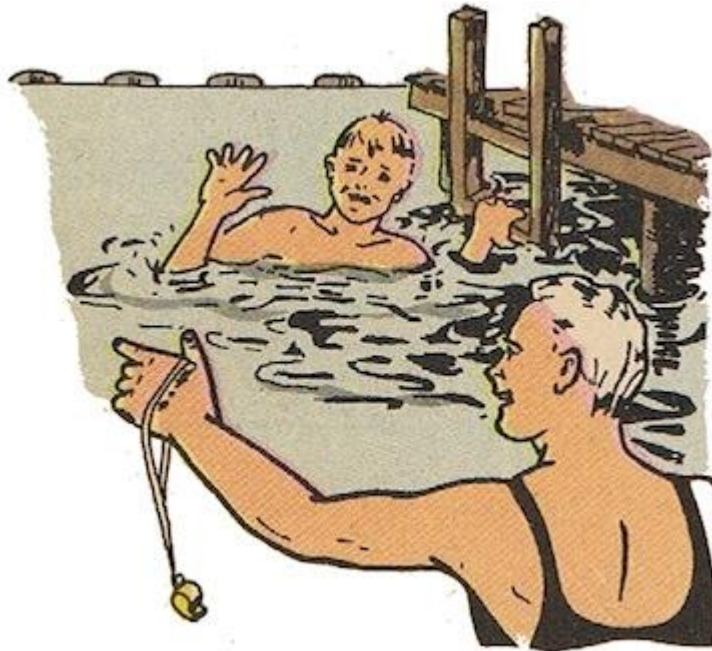
...take giant steps in the water?

...run across the water?

...jump while in the water?

...gallop across the water?

...skip across the water?



2. Walking Race

All the players are lined up on one side of the pool on signal, each walks as fast as he can through the water to the opposite side of the pool the first to arrive wins the race. Other basic movements (run, jump, gallop, skip, hop) can be substituted for walking.

3. Outboard/Tire Relay

Divide the Kawan into two teams, two Color Groups to a team. Each team is in shuttle relay formation.

XXXXXXXXXX-----XXXXXXXXXX
XXXXXXXXXX-----XXXXXXXXXX

A kickboard or tire is given to each team. On signal the first member of each team holds the kickboard in the same manner, until all have had two turns each and have returned to their original places. The team that finishes first wins.

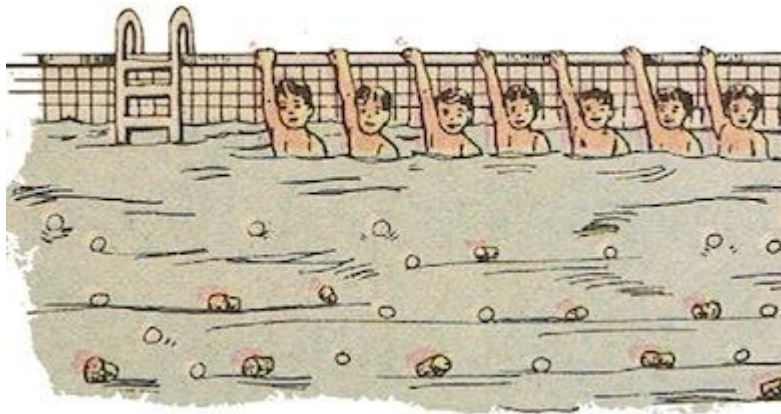


4. Tread Tag

One swimmer is designated as IT. Other players swim about the pool or swimming area. On signal IT tries to tag any swimmer. To escape being tagged, the swimmer must tread water. A swimmer tagged when he is not treading becomes IT.

5. Log

Mark off spaces at opposite ends of the pool or swimming area for two goals. One player is designated the “log” and floats on his back in the center of the pool midway between the two goals. The others swim in a circle around, rolls over and chases them. The swimmers try to reach one of the goals to avoid being tagged. Those caught before reaching a goal must join the “log” and float with him at the center. The last player caught becomes the first “log” for the next game.



6. Scramble

The boys are divided into two teams and have them line up on opposite sides of the pool. The boys should be advised to be in the water with their hands touching the side of the pool. Pingpong balls or floating corks are thrown into the water. On command “go” the boys try to get as many balls or corks as possible for their teams. The team which has the most number of balls or corks wins the game.

7. Net Fishing

The boys should be divided into two teams. The first team join hands in circle formation to make a “net” with which to catch the others (the other team) who are the “fish.” Hands must remain joined when catching fish. Fish caught becomes part of the net. After a designated time, the fish caught are counted and the teams reverse roles and play for the next game. The team with the most number of fish caught wins the game.



8. Simon Says

The boys are scattered in the pool or water and face the leader who calls out skills to be performed. If command is prefaced with “Simon says,” everybody obeys the command. If the command is not prefaced with “Simon says,” the boys are not supposed to perform them.

Each time a boy performs at a wrong time he may acquire points against him. The boy with the lowest number of points wins the game. Some skills that may be commanded are:

- blowing bubbles,
- jellyfish float,
- treading water
- ducking the head,
- touch the bottom of the pool
- back float.

