Karingal Camp

Theme Space Odysseys 2006

Sub Theme Space

Friday 3rd March

6.00 pm	Meet at den
6.30 pm	Blast off
7.15 pm	Arrive at plant Endor
7.20 pm	Unpack & set up space station & space Rules
8.15 pm	Space walk
8.45 pm	Supper
9.00 pm	Game – Star wars
9.30 pm	Game - Electric circuit
9.45 pm	Game – Count down – Blast off
10.00 pm	Teeth, story, Bed
10.30 pm	Moon light out

Saturday 4th March

6.00 am	Rise & shine – dress
6.30 am	Space walk to see earth sunrise
7.00 am	Breakfast, clean-up & teeth
8.00 am	Game – Moonwalk
8.15 am	Bases (1) Space food – space sherbet (2) Rocket science – balloon rockets (3) Space power – rockets (4) Media Message (5) Moon cookies – cooking
9.30 am	Morning Tea
10.00 am	Game – Robot arms
10.20 am	Talk – on Saturn
10.25 am	Saturn model
11.25 am	Game – Space Craft Simulator
11.35 am	Building and using an astrolabe
12.00 pm	Lunch
12.45 pm	Moon Buggy rides (go-karts)
2.45 pm	Afternoon tea
3.15 pm	Game – Rockets & Interceptors (cops & robbers)
3.45 pm	Craft – Make a galaxy
4.30 pm	Sixers to prepare camp fire skits
5.00 pm	Showers - free time (puzzles space board game & finish craft)

6.00 pm	Dinner
7.00 pm	Linking up ceremony
7.30 pm	Campfire with the Joeys (Cub leaders to run)
8.00 pm	Talk on Southern Cross
8.15 pm	Find the Southern Cross, look for satellites & determine which is due south
8.30 pm	Supper
8.45 pm	Game – Attack by the monsters from plant x
9.00 pm	Game – Black Hole (blanket game who missing)
9.15 pm	Game – Whistle Hunt
9.30 pm	Construction – Space rockets (Straw construction)
10.00 pm	Teeth & bed
10.30 pm	Moon light out

Sunday 5th March

6.00 am	Rise & shine – dress
6.30 am	Space walk
7.00 am	Breakfast, clean-up & teeth
8.00 am	Scouts own with Joeys (Joey leaders to run)
8.20 am	Game – Space invaders
9.00 am	Morning tea
9.30 am	Craft – Solar system diagram's
10.00 am	Activity – Rockets
10.45 am	Game – Stop the Asteroids
11.00 am	Game – Maze walk (set up a rope maze)
11.30 am	Active – Morse code signaller
12.00 pm	Lunch
12.30 pm	Clean up space station (pack for home)
1.15 pm	Meteor fight (water bomb fight) emu parade
1.45 pm	Into Cub uniforms
2.00 pm	Parade
2.15 pm	Space ride home (transport)
2.30 pm	Leave the space station for earth
3.30 pm	Arrive back on earth (back at den)

STAR WARS

Description

1. Divide playing space in half by Rope
2. Each team has one Jedi knight (with boffer), has a star base (poly-spot), and many death stars (Nerf balls)
3. At start, both teams rush to the dividing line, gather as many death stars as possible and begin hurling them at the opponents.
4. If a death star hits a player, they become frozen immediately. If a player catches a death star, the thrower becomes frozen instead
5. A player can only get back in the game if they are touched by the light saber of the teams Jedi knight.
6. In order to "save" a frozen team player, the Jedi must leave his star base, hopping on one leg to the frozen player and tap her with the light saber.
7. As long as the Jedi is on the star base, he is safe. If a death star hits him, he is frozen for good.
8. The team who has players left standing and not frozen is the winner

Requirements

As many Nerf balls as possible Rope to use as a divider 2 Poly-spots 2 Boffers (pool noodles work well)

Game - Electric circuit

Have all the players hold hands in a circle and designate one to start the "shock" going by squeezing the hand of the player on either the right of left of him. That player passes it on. The shock may move either direction; at any time a player may send it back the other way. "it" watches the faces and hands of the players closely trying to detect the location of the shock. When they guess correctly, the player caught becomes "it".
To make it more fun you can certain players be electrical items and when the shock passes by them they make the sound of the electrical item.

Game – Count down – Blast off

Cubs are lined up along one wall of the hall; each cub is given a balloon - long type preferably. Leader does the countdown. When count down starts the cubs start to blow up the balloons, they keep blowing till zero, careful not to bust the balloon, (no second chance) on blast off – holding the neck of the balloon and pointing it at the other end of the hall – let go. The one that carries the biggest distance wins.

Game – Moonwalk

Equipment
Three paper plates per six or round pieces of cardboard

"We have landed on the moon; we are stepping out of our capsule ready to go exploring" Sixes in relay formation; each six has three paper or cardboard circles just big enough to put a foot on. (Craters). On "go" the first person in each six puts down one "crater", and stepson it with one foot, then puts down another crater and puts his foot on that. Then he puts down the third crater and puts his foot onto it. He must now pick up the first crater and put it in front and then step onto it. He has to do this each time so he can take another step. When he reaches the end of the hall he picks up all of the craters and runs back and gives them to the next person in there six. They then proceeds to do the same as the first child, and so on till the last child has completed the walk.

(1) Space food – space sherbet

The Lemnii need a continuous supply of special Space Food to keep up their energy levels. The last meteor strike destroyed their factory. They have more raw ingredients but can't work out which is which, because Lemnii have no sense of taste. The Earthlings must help sort the ingredients out or the entire Lemnii race will die.

Give each cub own spoon. Adult to give out SMALL quantities of each powder (esp citric acid). Whole group to taste one number together and decide on category – sour, fizzy / salty, floury, sweet, sweet-fizzy-flavoured.
Make Space Food: 1 tsp Citric Acid, ½ tsp Bicarb, ¼ cup Icing Sugar. Mix in zip lock bag. Label with name

Need: Plastic spoons, measuring cups, zip lock bags, labels, containers 1-5.

(2) Rocket science – Balloon rockets

Decorate a lunch size bag with a picture of a rocket or shuttle and show the cubs the principle of flight by blowing up the balloon, inserting it into the bag, and then turning it loose and having the bag "take-off" into space.

(3) Space power – Rockets

Rocket Materials

. Film canister

. Cardboard and sticky tape.

To make

Make cardboard fins and a nosecone. Attach to the film canister using sticky tape. The lid becomes the launching pad.

Rocket Fuel. There are two alternatives

An Alka Seltzer tablet and a few drops of water, or
Bicarbonate of soda, water and vinegar.

To fly (assuming bicarbonate soda is use)

1. Make a runny paste of bicarbonate of soda and water.
2. Press the paste into the recess in the lid of the canister.
3. Add a teaspoonful of vinegar to the canister.
4. Put the lid on and shake vigorously.
5. Place the rocket on a firm surface and start the count down!

(4) Meteor Message

Lemnos has many meteor showers. The children play a game called 'Meteors'

Sending secret messages:
Write message with cotton-bud dipped into lemon juice on long pieces white paper. Let dry.
Make meteors: Make a meteor out of a balloon and rice. Slip string around until tie lies inside one end. Punch hole on one end of 2 streamers and secret message. Tie to meteor with ends of string. Tie ends of string together to form a loop. Go into the hall. Divide into 2 teams standing good distance apart. Swing meteor in clear space, let go towards other team. Retrieve message. Take inside and read by placing over a candle flame.

Need: Lemons, lemon juice, cotton-buds, string, knife, cutting board, streamers, narrow lengths paper, hole punch, candles, matches.

(5) Moon cookies – No baking

measure the following ingredients into a big, big bowl
½ cup wheat germ
1 – ½ cup peanut butter

3 cups dried milk
¾ cup cracker crumbs

mix everything together first with a wooden spoon. Now use your hands to shape the dough into small round balls or moons. Or you can shape crescent moons too.

Hint: if you wet your hands, it will be easier to work the dough.
Roll each moon in powdered sugar. Then refrigerate They are ready to eat
Game – Robot arms

Requirements: Disks or paper plates, blindfold, Rope

You're the operator of the space shuttle's robot arm. The arm will do everything you tell it, but it can't see or
think for itself. Your job, pick up the three space disks and return them to your position. Use voice commands
like 'forward, left, right, and down' to direct the robot arm. Keep the tether rope tight to prevent the robot arm from
overshooting the targets. This is a timed event.

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Talk – on Saturn

Saturn is the sixth planet from the Sun and is the second largest in the solar system with an equatorial diameter of 119,300 kilometers Saturn is visibly flattened at the poles, a result of the very fast rotation of the planet on its axis. Its day is 10 hours, 39 minutes long, and it takes 29.5 Earth years to revolve about the Sun. The atmosphere is primarily composed of hydrogen with small amounts of helium and methane. Saturn is the only planet less dense than water (about 30 percent less). In the unlikely event that a large enough ocean could be found, Saturn would float in it.

The wind blows at high speeds on Saturn. Near the equator, it reaches velocities of 500 meters a second (1,100 miles an hour). The wind blows mostly in an easterly direction.

Saturn's ring system makes the planet one of the most beautiful objects in the solar system. The rings are split into a number of different parts, which include the bright A and B rings and a fainter C ring. The ring system has various gaps. The most notable gap

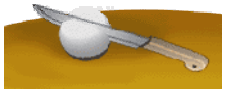
is the Cassini [kah-SEE-nee] Division, which separates the A and B rings. Giovanni Cassini discovered this division in 1675. The Encke [EN-kee] Division, which splits the A Ring, is named after Johann Encke, who discovered it in 1837. Space probes have shown that the main rings are really made up of a large number of narrow ringlets. The origin of the rings is obscure. It is thought that the rings may have been formed from larger moons that were shattered by impacts of comets and meteoroids. The ring composition is not known for certain, but the rings do show a significant amount of water. They may be composed of icebergs and/or snowballs from a few centimeters to a few meters in size. Much of the elaborate structure of some of the rings is due to the gravitational effects of nearby satellites. This phenomenon is demonstrated by the relationship between the F-ring and two small moons that *shepherd* the ring material.

Radial, spoke-like features in the broad B-ring were also found by the Voyagers. The features are believed to be composed of fine, dust-size particles. The spokes were observed to form and dissipate in the time-lapse images taken by the Voyagers. While electrostatic charging may create spokes by levitating dust particles above the ring, the exact cause of the formation of the spokes is not well understood.

Saturn has 30 named satellites and more continue to be discovered.

For each Saturn model, you will need:

- One unwanted compact disc (CD). (Many people get these free in the mail.)
- One 2-inch diameter styrofoam ball, carefully cut in half with a sharp knife (get adult help, please!)



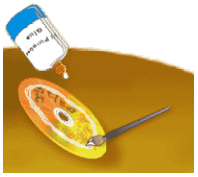
- White glue
- Wooden toothpicks

- Paint brush, about 1/4 to 1/2 inch wide
- Glitter--silver, gold, black or any other colors you want
- Yarn, black or other colors (optional)
- Needle-nosed pliers (or scissors will do)
- Small paper clip
- Thread

What to do:

Our pictures are just suggestions. Decorate your Saturn and rings however you want.

First, start with the rings:

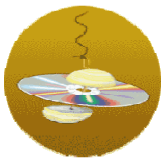


- The CD will become Saturn's rings. Usually one side of the CD has printing on it. This is the side you will decorate with glitter.
- Try not to get glitter in the center part of the CD, where you will be gluing the styrofoam ball.
- Rinse the paintbrush out between uses, so it will stay soft and easy to use.
- Use the paintbrush to carefully spread glue on the CD. If you want to make it look like some of the rings are silver and some gold, spread the glue only where you want to put the first color, then sprinkle the glitter on the wet glue. Let it dry completely. Then repeat for the remaining areas. You can use as many different colors as you want. Just be sure to let the glue dry completely for each color before adding the next color.
- If you want to use yarn also--for example, black to show the divisions in the rings--glue it on and let it dry before adding the glitter.

Then decorate the planet:

- Stick a toothpick into the flat side of each half of the styrofoam ball to give yourself a handle.
- Use the paintbrush to apply glue and glitter on the round part of each half, as you did for the CD. Let the glue dry completely.

Now put them together:



- Take the toothpick out of one of the styrofoam halves. On the other half, make sure the toothpick is stuck exactly into the center and push it in until it starts to poke out the top.
- Spread glue around the center of the decorated side of the CD. Pick up the CD and place the styrofoam half with the toothpick exactly in the center of the CD, toothpick sticking through the hole.
- Now push the other styrofoam half onto the toothpick sticking out the hole on the other side of the CD. When both halves are flat against the CD, a small part of the toothpick will be sticking out one of Saturns "poles." Break it off with needle-nosed pliers. And hang it up:

- Open a small paper clip so it looks like this:

- Decide which half of Saturn you want to be the top. Since Saturn's axis is tilted 27 degrees, stick the paperclip into the top about $\frac{1}{2}$ inch away from the center (where the toothpick

comes through). Angle the paperclip so it passes through the hole in the CD and helps hold the two styrofoam halves together.

When you hang your Saturn up, and it turns in the breeze, you will see the "rings" from different angles, just as we see the real Saturn at different angles from Earth.

- Tie any length of thread to the paperclip and hang your model wherever you like.

Game – Space Craft Simulator

Requirements : Nil

Cubs sit in one large group or in their sixes. They are told that they are on a space simulator and must follow all directions. The leader calls out directions such as left, right, turbulence, meteor hit etc and the cubs must act this out

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The world's oldest measuring instrument

Building and using an astrolabe (for day and night use)

Building the astrolabe

Astrolabes are instruments designed to measure the altitude or elevation above the horizon of celestial bodies. They were first used by Greek astronomers approximately 2000 years ago. Using cardboard, a protractor, a straw, a 30cm piece of string and a metal washer you can construct a simple astrolabe as follows:

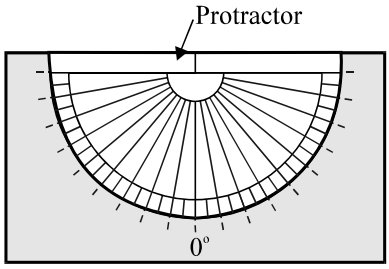
(a) Cut out a rectangular piece of cardboard slightly larger than a protractor. Trace out the shape of the protractor on the cardboard and mark in the main points of a scale at 10 degree intervals. Start with zero degrees at the bottom of the scale as shown in Figure 1.1. Mark the point on the cardboard where the cross hairs of the protractor

are located. Punch a small hole through the cardboard at that point. Remove the protractor.

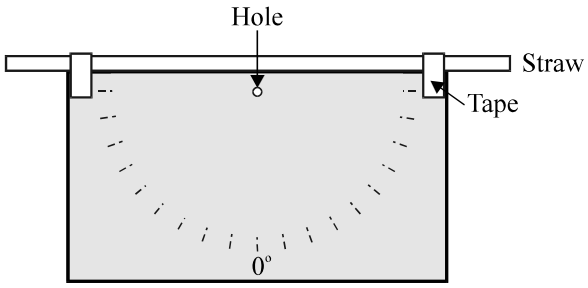
(b) Tape a straw to the edge of the cardboard closest to the hole you have just punched (Figure 1.2). Do not crush the straw.

(c) Attach a washer (plumb bob) to one end of the piece of string. Thread the other end of the string through the hole in the cardboard and secure by tying a knot. The plumb bob should swing freely from the cross hairs. The astrolabe is now complete and ready to use (Figure 1.3).

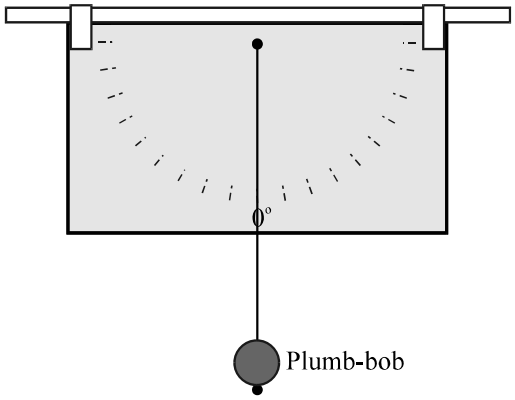
(1)



(2)



(3)



Figures 1.1; 1.2; 1.3: Stages in the Construction of an Astrolabe

Using the astrolabe

Take the astrolabe outside. Sight through the straw at any object that is well above ground level (not the sun). Measure the angle shown in Figure 2. This angle is a measure of the altitude of the object above the ground. Record the reading and repeat for other objects. You can use the astrolabe to measure the altitude of the moon and other celestial objects you can see at night.

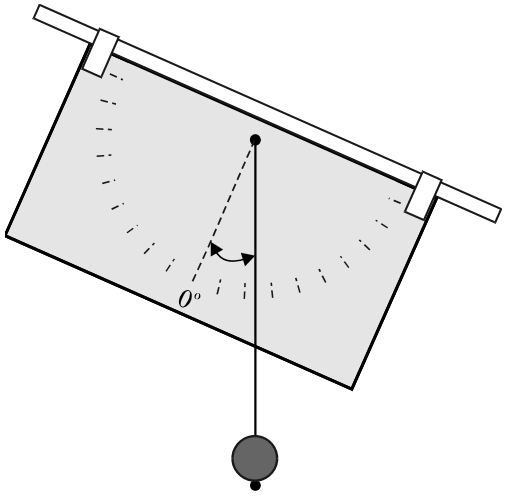


Figure 2: Using the Astrolabe

The astrolabe can be modified to allow you to measure the sun's altitude during the day. Cut out a 4cm x 4cm piece of cardboard, which can be used as a shade. Punch a hole in the middle of the piece of cardboard so it forms a tight fit over the straw. Attach the cardboard to one end of the straw. With your back to the sun adjust the alignment of the astrolabe so that the shade forms a shadow on a screen (Figure 3). When a point of light is observed in the middle of the shade patch you can now read off the altitude of the sun. Measurements of the sun's altitude can be safely conducted during a day of solar observations using this method.

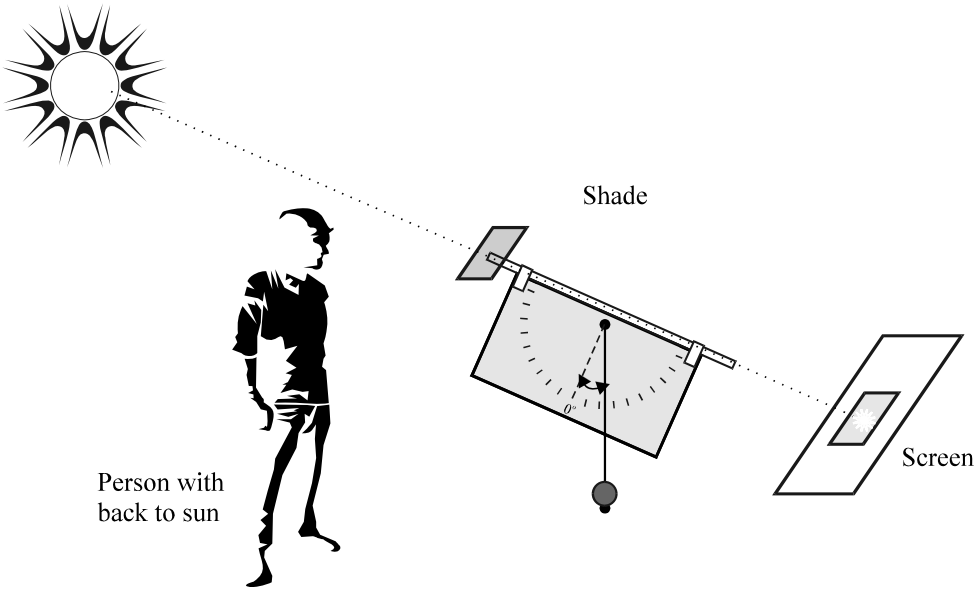


Figure 3: Using the Astrolabe During the Day

Moon Buggy rides (go-karts)

Requirements: Bike helmets, elbow and knee guards

Take the cubs to go kart hill and have moon buggy races

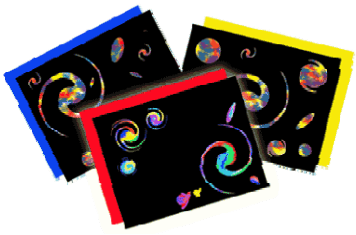
Game – Rockets & Interceptors (cops & robbers)

Requirements: Ropes, paddle pop sticks

Make up a playing field with 3 sections, the top section is the robbers area, the bottom section is the cops area and the middle section is were the paddle pop sticks are scattered about.

Divide the pack into two groups, one robbers and one cops. The robbers stand in their section and the cops in their section, on "go" the robbers run into the middle section and try to grab a paddle pop stick and take it back to their section before heading back for another stick (only one paddle pop stick can be taken at a time).
The cops also go into the middle section and try to tag a robber when he/she has a paddle pop stick, if a robber is tagged they must drop the paddle pop stick where they are and then go back to their section before joining in again. The robbers are trying to get all the paddle pop sticks into their section while the cops are trying to stop them from getting any into their section. After a set time the game is stopped and you see who has been more successful – the robbers getting more sticks into their section or the cops in stopping them getting sticks into their section.

Craft – Make a GALEX Galaxy Montage



Make a colorful work of galactic art using coffee filters, markers, and construction paper. Hang your galaxy montage on the wall or refrigerator. It will remind you of the beauty of the night sky and the great variety of shapes the galaxies take.

What you need:

- Coffee filters, any size, 2-6. (For best results, ask a grown-up to iron them flat before using.)
- One large sheet (11 x 17) of black construction paper
- One large sheet (11 x 17) of colored or white construction paper (optional)
- Colored marker pens, at least 3 bright colors. These should be **water-color pens**, **not permanent markers**. You **want** the colors to run together!
- Water in a cup
- Plastic sheet to protect table (a garbage bag works fine)
- Eye dropper or drinking straw
- Scissors
- Glue stick
- Blue (or other color) glitter (optional)

What to do:

1. Using the water-color markers, draw colorful designs on the filters. You could draw stars, planets, moons, and comets, if you like. After all, these are all objects that make up galaxies!
2. Spread out the plastic sheet to protect table or floor, and lay the coffee filters on it.
3. Use the straw or eye dropper to dribble a few drops of water on the filters. The water will make the colors run together in lovely ways. Let the filters dry.
4. When the filters are dry, cut them into galaxy shapes. See the galaxy patterns for our "**Make a Galactic Mobile**" activity for shape ideas. You may want to make the "arms" of spiral galaxies very long. Scientists have discovered the spiral arms often extend much farther than anyone thought. If you make the galaxies different sizes, the smaller ones will seem to be farther away.
5. Arrange your galaxies on the sheet of black construction paper and glue them down with the glue stick.
6. If you like, use the glue stick to add some blue glitter highlights to your galaxies. The blue glitter can be the

thousands of new stars being born in the galaxy.

7. If you like, glue the extra piece of construction paper on the back to make a two-sided border.
8. Display your galaxy montage where your friends and family can admire it!

Talk on Southern Cross

Unique to the Southern Hemisphere is a constellation of 5 stars forming a cross in the sky. This constellation is known as "Crux" or more commonly "The Southern Cross". The Southern Cross was used by sailors in the southern Seas to navigate; it is a very reliable way of finding south.

Find the Southern Cross, look for satellites & determine due south

Depending on the time of night and month of year, the Cross may be high in the sky or upside down close to the horizon. To find the cross we first need to find the Milky Way. The Milky Way is a filmy band of star light which runs right around the sky. On one side of this band of stars are two stars know as The Pointers. A line drawn through the pointers and across the Milky way will pass through a dark patch on the edge of the Milky Way. This patch is known as the 'Coal Sack' formed by a huge cloud of dust floating in space. Between the "Coal Sack" and The Pointers, though still in the Milky Way your line has passed through a bright star know as "Acrux". This star also known as Alpha is the brightest star in the Southern Cross.

Finding South

There are two methods of finding south using The Southern Cross

Method 1
Draw 2 imaginary lines, one through the long axis of The Cross and the other bisecting The Pointers at 90 degrees and continuing until it meets the first line. From this point in the sky we draw a 3rd line directly to the ground; this point is South Sound confusing? Fear not method 2 is much easier.

Method 2 Once again draw an imaginary line through the long axis of the Cross, continue this line until it meets a bright star. This star is "Achernar". Half way between Achernar and the Southern Cross is the South Celestial Pole, a point in the sky in which the stars seem to revolve around as the night wears on. From this point draw a line to earth – this is due South.

After cubs have found due south get them to look for other star constellations and planets

Game – Attack by the monsters from plant x (spotlight)

All Cub Scouts except one sit at the end of the hall. The one chosen is the "Monster" (this could be a leader) who stands at the opposite end of the hall with a torch. They face the wall and now and then turns and shines the torch at any Cub Scout whom they hear or thinks is moving. The rest of the pack has to try and creep up to the other end of the hall without being caught by the beam from the torch. The first Cub

Scout to succeed takes over as the monster and if caught they have to go back to the start.

Game – Black Hole (blanket game who missing)

Requirements: Blanket

Cubs to spread out in hall turn lights off and cover one cub with the blanket when lights are turned on the other cubs have to guess who is missing.

Game – Whistle Hunt

Requirements: A whistle

One Scout is given a whistle and has 5 minutes start to go and hide in a bushy area. The others wait for the word "GO" and set off to capture him or her. The scout must blow the whistle regularly every minute, and no other Scout is allowed a whistle. The captor takes the place of the captured, or another Scout is appointed after a set time has elapsed.

Construction – Space rockets (Straw construction)

Requirements: Straws

Put the Cub Scout in there sixes an give them a number of straws. See who can build the biggest rocket construction in 5 minutes**.**

Scouts own

Game – Space invaders

Requirements: Missiles that can be used

1 = Tennis balls lot of them
2 = Tennis balls attached to elastic lots of them
3 = Water balloons lot of them
4 = Basket balls Rolled lot of them
5 = Alfoil Balls lot of them
6 = Small bean bags lot of them

Look at the Safety when throwing or rolling missiles

Player = up to 6
Invader = the rest of the pack
3 to 6 boxes (depending number of cub you have) which has 3 flags on each box for player to protect and invader to take.
Play must protect the flags on the box by shooting missiles from only behind the box to destroy the invaders (players can run out onto the field to collect missiles but must not hit invaders on the field until they are back behind there box) once an invader has been hit they are out of the game. Once a player has all 3 flags removed they are out of the games .Invaders can only take one flag at a time and than return back to the middle of the field Invaders may be asked to move in various ways i.e. Hop, crawl, blind fold ECT.

Craft – Solar system diagram's

Recipe for a Galactic Mobile

You might need help from an adult or older friend for this one.

What you need:

- 12" (family size) or 7" (individual size) round cardboard from frozen pizza box. (Or cut circle from a cardboard box.)
- 4 large sheets (11" x 17") black construction paper
- Glitter--gold, silver, red, orange, yellow, blue, purple, or any other colors you like
- White glue
- Paintbrush, about 1/4 to 1/2 inch wide
- Scissors
- Thread (black is best) or fine nylon fishing line
- Small, 4-holed button
- Large, sturdy sewing needle
- 16 sequins or very small beads, black is best (optional)
- Tape measure or yard (meter) stick
- Pattern for galaxies.

First, make the galaxies:

1. Print out the patterns for the galaxies.
2. Cut the galaxy patterns apart on the dotted lines.
3. Use the patterns to cut each galaxy out of construction paper. If you are making a "family size" mobile, use all 12 galaxies. For an "individual size" mobile, use only 9 galaxies. Here's one way to cut out the galaxies:

   First cut out a small square of construction paper a little larger than the pattern paper. Tape the edges of the pattern to the construction paper so it doesn't slip when you cut. Now, cut out the galaxy, cutting through both the pattern and the construction paper.

4. Now decorate the galaxies with glitter. Imagine each speck of glitter is a star!

   Use the brush to spread the glue on one side of one galaxy. Sprinkle one or two colors of glitter on each. Remember, galaxies are brighter in the center (where the stars are younger and hotter), becoming fainter at the edges or on the spiral arms.

5. When you have decorated one side, set the galaxy on something it won't stick to when the glue is dry! (Like a cookie sheet, for example.)
6. When you have decorated one side of each galaxy, let the glue dry. Then turn them over and decorate the other side. Be sure to leave them laying flat until the glue is completely dry. Otherwise, the spiral arms will droop. (If they do, when they are dry you can set a heavy book on them for a while.)

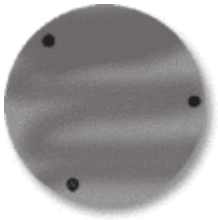
   While you wait for the glue to dry . . .

   Make the frame for the mobile:

7. Use the round pizza cardboard as a pattern to draw a circle in the center of each of two pieces of construction paper. If the paper is big enough, cut the two paper circles a little larger than the cardboard.
8. Glue the paper circles to the top and bottom of the cardboard. If the paper circles are large enough, glue their edges together so the edge of the cardboard is also covered.

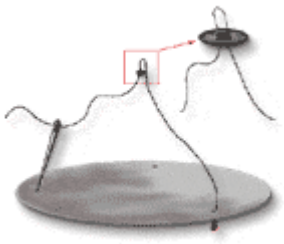
   Note: Instead of covering the cardboard with paper, if you wish, you can paint both sides of the cardboard

with flat black spray paint.

9.  Make three pencil marks equally spaced around the edge of the circle, about 1 inch in from the edge.

10.  Cut a length of thread about 2 feet long. Thread the needle, and either tie a fat knot in the end or tie a sequin or small bead to the end (include only one strand of thread).

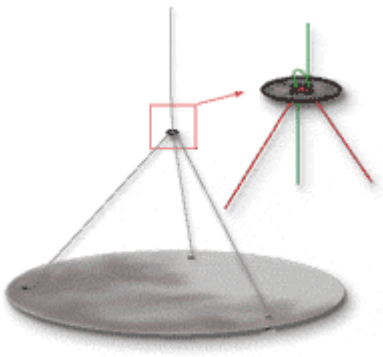
11. Poke the needle through one of the pencil marks on the edge of the cardboard circle. Pull the thread through to the knot, sequin, or bead.

12.  Take the 4-holed button and poke the needle up through one hole in the button and down through another.

13. Now poke the needle back down through another pencil mark on the circle (since the mark will be on the wrong side of the circle, you'll have to poke the needle up the other way first just to mark the hole).

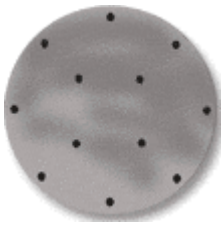
14. Unthread the needle and tie a fat knot, sequin, or bead in the end of the thread.

15. Now, cut a length of thread about 3 feet long and rethread the needle. Again, tie a fat knot, sequin, or bead in the end. Poke the needle up through the remaining pencil mark on the circle. (Knots, sequins, or beads should all be on the same side.)

16. 

Poke the needle up through one of the remaining holes in the button and then down through the last hole. Unthread the needle and tie a loop in the end of the thread for hanging the mobile from the ceiling.

Hang the galaxies from the mobile frame:

17. 

Make pencil marks on the bottom of the cardboard circle where you will be attaching each galaxy. For a 12-inch mobile, you could put eight evenly spaced around the edges and four evenly spaced in the center area. For a smaller mobile, you could put six around the edges and three in the center.

For each galaxy:

18. Cut a length of thread and thread the needle. Tie a knot, sequin, or bead to the end. Draw the needle through the center of the galaxy. Now poke the needle through one of the marks on the circle. Adjust the length of the thread so the galaxy hangs nicely, then cut the thread and tie a knot, sequin, or bead in the end.
19. Make the galaxies hang at different levels, so they can turn freely without hitting each other.
20. Hang your Galactic Mobile from the ceiling. Notice that you can adjust the thread going through the button to make the circle hang level.

Activity – Rockets

All the rocket plans were destroyed along with the Space Factory. Help save the people of Lemons by investigating jet propulsion.

Tie the ends of the fishing line WITHOUT the needles to a bar. Thread one straw through the fishing line. Blow up balloon (don't tie end)). Tape to straw. Pull line taut, let balloon go. Have cubs race balloons and record longest travel. What factors increased distance traveled?

Need: 1 Balloon (different shapes?) and straw per cub. Lengths of Fishing line, string, wool,

thin core or elastic; one end with darning needle threaded. Masking tape.

Game – Stop the Asteroids (Bats and Moths)

Requirements: short lengths of rope
some blindfolds
Neckers can be used for both of the above

Played in a defined area, the group is divided into pilot and asteroids, typically 1 pilot for each 5 or 6 asteroids

The pilots have blindfolds and the asteroids have their feet tied together. The asteroids then try and hop about trying to avoid being captured (sitting out the rest of the game) and the pilots obviously have to catch the asteroids by listening for the hopping asteroids.

Game – Moon walk

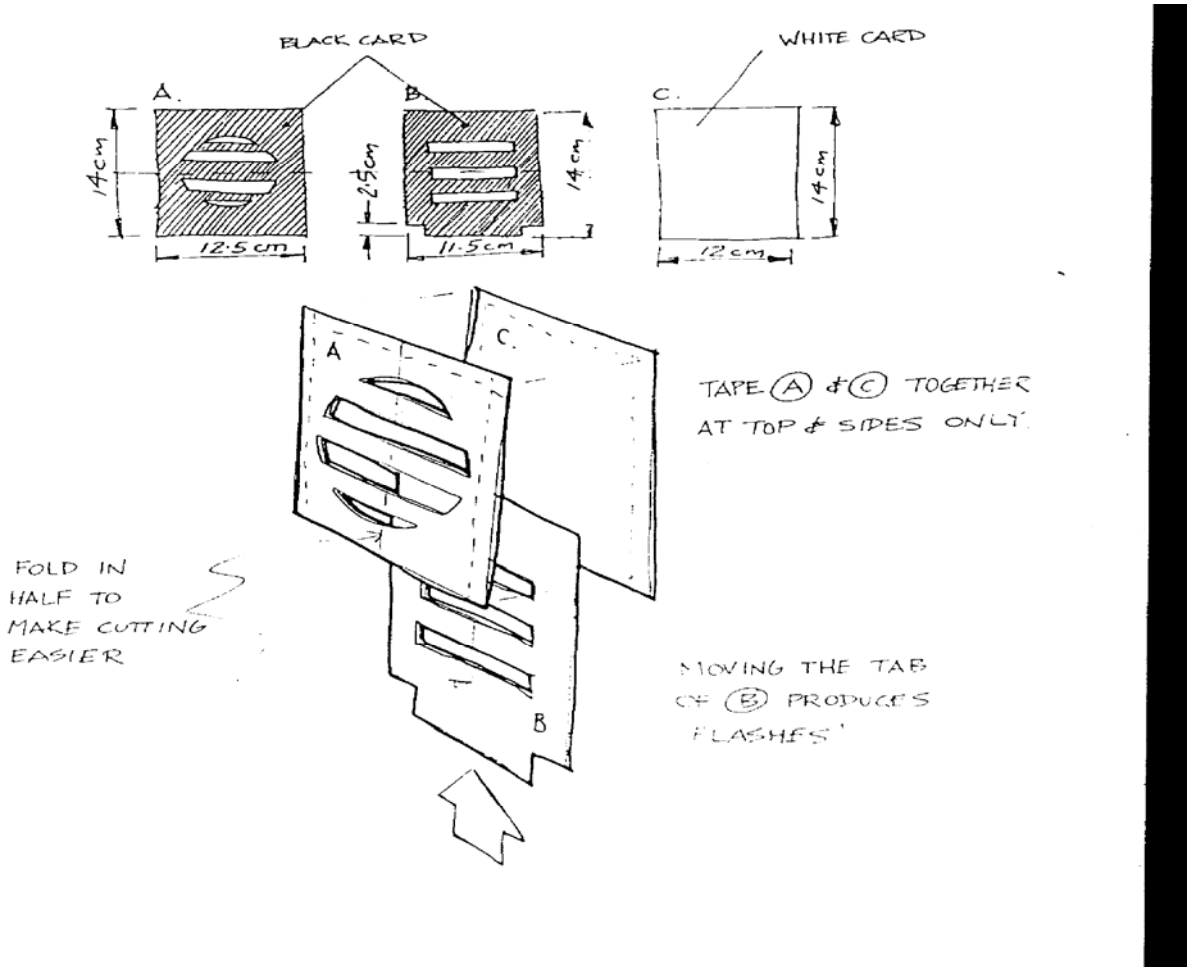
Leader to set up a low rope course and set up objects along the part. Cub Scout are to follow the rope blindfold

Active – Morse code signaller

Requirements:

2 pieces of black cardboard and 1 piece of white cardboard Approx. 140mm by 125 mm) scissors, tape and a circle stencil (lid or can)

Mark out and cut the two pieces of black card as shown below. Folding the card carefully down it's centre makes the cutting of the slots easier. Tape the white cord by it's edges only to the front black card as shown, then slide in the second piece of black card so that it can be moved freely up and down. By doing this quickly and slowly messages in Morse code can be sent from one Cub Scout to another.



Meteor fight

Good old fashion water bomb fight. After the water bomb fight get cubs to clean up all balloons with a emu parade