

Space Fun Activity Pack



This pack was put together by the unit teams of 1st and 4th Barnehurst Rainbows and 4th Northumberland Heath Rainbows as part of their event fundraising during lockdown in 2020.

In this pack you will find a selection of activities in the following topics

- Planets
- Stars and black holes
- Moons
- Rockets
- Aliens
- Astronauts

Badges can be ordered using the order form at the back of the pack.

We would love to see what you and your units get up to when completing the badge and you can share this on social media with us on any of the details below:

📍4thNorthHeath

📍GGErithCrayDiv

📍BarnehurstRain1

#SpaceFun

Hopefully, we have included a real variety of activities and also lots of resources to help too.

There is no requirement to complete a set amount of activities, we have highlighted a couple of opportunities for links with the Girlguiding programme. If you spot any other overlaps, please do let us know as we can amend the pack for others 😊

If you have any questions, or have any suggestions of additional activities, please do get in touch through email: barnehurstrainbows4@gmail.com

Planets

Planet Throw Game

You will need:

- 8 x Buckets or hoops
- 5 x Bean bags/cuddly toys

What to do

1. Give your buckets planet names and points - the further away from you, the more points you should give it.
2. Throw your bean bags into the buckets.
3. Add up your score.
4. Try again and can you beat it this time?

Challenge further - play against someone else at home; who wins or who can be the first to win 5 games.



Earth Suncatcher

You will need:

- Thin black card
- Blue and green tissue paper
- Sticky back plastic
- Scissors
- String

What to do

1. Draw 2 circles on the black card one inside the other and cut these out to make the frame.
2. Cut out a circle from the sticky back plastic the same size as the bigger circle.
3. Peel off the backing and carefully stick the black card frame to it.



4. Tear different sized pieces of blue and green tissue paper and stick onto the sticky back plastic in the middle of the frame.



5. Use the string to hang your Earth suncatcher near a window,

Challenge:

See if you can create different planet suncatchers using different coloured tissue paper and hang them all so the sun can shine through them e.g. red/orange for Mars.

Wool Wrapped Planets

You will need:

- Cardboard
- Wool
- Scissors



What to do

1. Cut the cardboard into the rough sizes and shapes of the planets.
2. Cut slits all around the planets to help keep the wool in place.
3. Wrap wool around each planet.

Planet from an old CD

You will need:

- Styrofoam ball
- Old CD or DVD
- Cocktail stick
- Paint
- Glue (UHU type)
- Glitter (optional)



What to do

1. Cut the styrofoam ball in half.
2. Paint the ball – look at pictures for colours of current planets or devise your own.
3. Glue the CD to the flat side of the ball and allow to dry.
4. Put the cocktail stick in the centre of the other ball half and glue to the other side of the CD and allow to dry.
5. If wanted, you can add glitter to the surface of your planet and use thread to hang up.

Outer Space Yoga

Try these yoga poses for different astrological phenomena.

Mountain pose – pretend to be the sun:

Stand tall in the Mountain Pose, look up, take your arms straight up to the sky, and touch your palms together. Pretend to look up to the sun.



Crescent pose – pretend to be the moon:

Stand tall with legs hip-width apart, feet facing forward, and straighten your arms alongside your body. Reach your arms up high over your head, bringing your palms together. Tilt your upper body to one side, pretending to be the moon. Come back to centre. Tilt your body to the other side.

Warrior pose – pretend to be a shooting star:

Stand on one leg. Extend the other leg behind you, flexing your foot. Bend your torso forward and take your arms back alongside your body. Pretend you are falling through the sky like a shooting star. Switch sides and repeat the steps.



Pose – pretend to be a comet:

Sit on your heels, slowly bring your forehead down to rest in front of your knees, place the palms of your hands flat out in front of you, and take a few deep breaths. Imagine your arms being the “tail” of gas and dust particles coming out of a comet.

Pose – pretend to be an asteroid:

Sit on your heels, slowly bring your forehead down to rest on the floor in front of your knees, rest your arms down alongside your body, and take a few deep breaths. Pretend to be an asteroid in the dark sky.



Now try these star inspired constellation yoga moves.

Cassiopeia (Queen)

How to practice the Dancing Ganesha: From Tree Pose, release your right foot and take it out in front of you, with a bent right knee. Bring your hands out in front of you and hold your hands like the queen constellation.

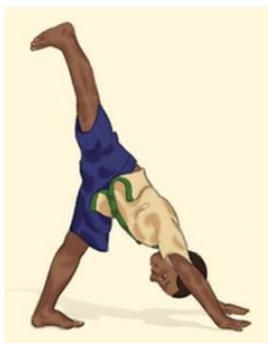


Crux (Southern Cross)

How to practice the Half Moon Pose: From a standing position, step your left foot back while opening your hip out to the side. Tilt forward, place your right hand flat on the ground (or on a block) in front of your right foot, while simultaneously lifting your left foot. Open your hips and extend your left arm up to the sky. Align your shoulders over each other and open your chest. If possible, try gazing out to the left. Pretend to be Southern Cross. Switch sides and repeat the steps.

Orion (The Hunter)

How to practice Low Lunge: Come to an all-fours position. Step your left foot forward, placing it to the outside of your left hand. Gently shift forward to a low lunge. Pretend to be the Hunter constellation. Switch sides and repeat the steps.



Ursa Major (Great Bear)

How to practice Three-Legged Dog Pose: From an all-fours position, lift your knees, straighten your legs, and send your buttocks up into an upside-down V shape. Gently lift one leg up at a time, pretending to be the Great Bear constellation.

Canis Major (Great Dog)

How to practice Downward-Facing Dog Pose: Step back to your hands and feet in an upside-down V shape, with your buttocks up in the air, and pretend to be the Great Dog constellation.



Edible Planets

You will need:

- Orange
- Cherry tomatoes
- Strawberries
- Banana
- Blueberries
- Green grapes
- Sweetcorn canned
- Mini Babybel cheese
- Blue plate



What to do

1. Place ingredients on plate as shown.
2. Each ingredient can be assigned to a planet as listed:
 - Sun – orange slice
 - Mars – cherry tomato slice
 - Venus – strawberry slice
 - Earth – banana slice
 - Mercury – sweetcorn kernel
 - Jupiter – Mini Babybel, wrapper removed
 - Neptune – blueberry
 - Uranus – grape
 - Saturn – Mini Babybel, wrapper partially removed
 - Asteroid belt – Mini Babybel, unwrapped and broken into pieces

Alternatively, this activity could be done with different fruits as shown in picture e.g., kiwi fruit, piece of apple, mini marshmallow.



Solar System in a Jar

You will need:

- Empty jar
- Air drying clay
- Paint
- Cocktail sticks
- Glue (UHU type)
- Fishing line or clear thread

What to do

1. Make the planets using the clay. Pictures may help to get the sizing and proportions correct.
2. Place each planet on a cocktail stick, to make a hole and allow to dry.
3. Paint each planet the relevant colour and allow to dry.
4. Remove the cocktail stick and attach the fishing line or clear thread. Add glue to each hole to secure the thread in place.
5. Ensure the thread is different lengths, so the planets hang at different heights and secure the loose end to the lid of the jar with glue and allow to dry.
6. When the lid is placed on the jar, the planets will look like they are floating or orbiting in the jar.



Fizzing Planets

You will need:

- Baking soda
- Water
- Vinegar
- Dropper
- Liquid food colouring



What to do

1. Mix 4 times the amount of baking powder with water (e.g., 1 cup soda to ¼ cup water).
2. The paste should be thick enough to hold its shape. If too runny add more baking soda, if too crumbly add more water.
3. Divide mixture into smaller amounts and add colouring.
4. To make the planets 'fizz' use the dropper to add drops of vinegar.

Aid to remember planets order

Often a mnemonic – a phrase or saying is used to help you remember the order items go in. e.g., Richard Of York Gave Battle In Vain – colours of rainbow – red, orange, yellow, green, blue, indigo, violet. Can you devise further mnemonics to help you remember the order of the planets? See example below. You do not have to use Pluto.



Ordering the Planets

Can you make up some mnemonics to help you to remember the order of the planets. Try your own and fill them in the empty columns below:

		Example ↓	Mnemonic 1	Mnemonic 2	Mnemonic 3
	Mercury	My			
	Venus	Very			
	Earth	Energetic			
	Mars	Mother			
	Jupiter	Just			
	Saturn	Served			
	Uranus	Us			
	Neptune	Nine			
	Pluto (dwarf planet)	Pizzas			

Solar System Necklace

In this activity you will be wearing the solar system but in a minute format. You could even create your own solar system with your own planets.

You will need:

- Assortment of wooden beads (multiple sizes)
- Bright and metallic acrylic paint
- Cord
- Wooden skewer



What to do

1. Choose beads (each with a hole) for your solar system it could be Sun, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, and Pluto. Ensure that you can thread these on your chosen cord.
2. Place the beads on a wooden skewer ready for painting.
3. Your beads could be painted as follows:



1. Sun Metallic Gold + A Layer of Orange + A Layer of Metallic Gold
2. Mercury and Pluto Metallic Silver
3. Venus Orange + A Layer of Copper
4. Earth Blue + Green Areas
5. Mars Orange + A Layer of Red
6. Jupiter Copper
7. Saturn Gold + A Layer of Silver + A Stripe of Gold
8. Uranus Blue + A Layer of Silver
9. Neptune Blue + A Stripe of Silver

2. When the beads have all dried, place them onto the cord in the order they are from the sun.

Galaxy Snow Globe

A fun way to learn about density and why oil and water do not mix.

You will need:

- Snow globe or jam jar with a lid
- Distilled water (used for car battery or irons)
- Food colouring
- Glitter and or metallic confetti
- Baby oil



What to do

1. Fill the snow globe or jar halfway with baby oil.
2. Add glitter and confetti.
3. Colour the water with food colouring and add to the globe.
4. Add the lid and ensure it is tight.
5. Swirl the contents of the globe around, turn the globe upside down and watch what happens.

The food colouring mixes with the water but stays separated from the oil. The oil always floats to the top because it is less dense than water. When the mixture is swirled around it is seen differently each time.

Coffee Filter Planets

You will need:

- Coffee filters
- Paper plates
- Marker pens
- Spray bottle of water
- Scissors

What to do

1. Use the scissors to cut the planets from the coffee filters. Use a whole filter for Jupiter the largest planet.
2. Colour each planet as follows:
 1. Mercury – grey and brown
 2. Venus – yellow and brown
 3. Earth – green and blue
 4. Mars – red and orange
 5. Jupiter – red, brown, orange, and yellow
 6. Saturn – brown and yellow
 7. Uranus – blue
 8. Neptune – blue and purple
2. Place the planets once coloured onto separate paper plates and spray with water.
3. Remove from the plates and allow to dry.
4. Once dry the coffee filter planet can be put on windows to become a sun catcher.



Stars and black holes

Space Mobiles

You will need:

- Coloured paper/thin card
- 2 x sticks or bamboo canes
- about the length of a kebab skewer
- Thread or string
- Sticky tape

What to do

1. Using the different coloured card and paper you have, draw around 50 different space themed things. You could choose planets and rockets and stars, or you could add astronauts and aliens too.
2. Cut them out as neatly as possible.
3. Choose your first ten, lie them out face down in a line (like they will dangle).
4. Stick a length of thread or string to the back of them.
5. Repeat until you have 5 lengths of 10 pictures.
6. Using some string tie your two sticks together as a cross - leaving a length of string at the top to hang it up.
7. Tie one of your picture strings to the middle and the other four to the different ends of your sticks.
8. Hang up your Space themed mobile and imagine what it would be like to go in to space.



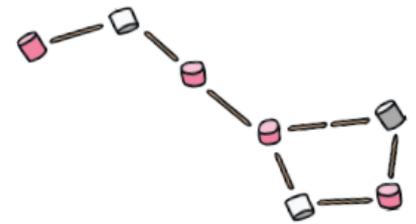
Marshmallow Constellations

You will need:

- mini marshmallows
- wooden skewers (cut into different lengths, with sharp edges removed)
- Constellation Cards
- scissors

What to do

1. Using the marshmallows and skewers see which constellations you can create.
2. See if you can remember what they are called.
3. When it's dark - look for the constellations in the sky.



Fizzy Stars

You will need:

- Baking Soda
- Vinegar
- Glitter
- Liquid food colouring
- Star cutter
- Dropper
- Dish

What to do

1. Place cutter in a dish and add the baking soda.
2. Use a dropper to add drops of vinegar to the sta.
3. Watch what happens. You could also add some drops of food colouring.



Hanging Stars

You will need:

- Coloured Craft Sticks
- Wool
- Mini Pom Poms
- Glue

What to do

1. Glue 5 sticks together to make a star shape as shown.
2. Tie a piece of wool to the star, so it can be hung up.
3. Glue on the mini pom poms



Shooting Star Spinner Toy

You will need:

- Small Plastic Bottle
- 2 Large Rubber Bands and one smaller one
- 2 Jumbo Paper Clips
- Yellow Cellophane
- Cardboard Star
- Black Paper
- White &/or Yellow Paint or pens

What to do

1. Use the paint or pens to draw stars on the black paper.
2. Cut out a star from a piece of thick cardboard and wrap a piece of yellow cellophane around it. Secure in place with a small rubber band. Cut the ends of the cellophane to make the tail of a shooting star.
3. Carefully make a hole in both the bottom of the bottle, along with one in the bottle cap. Adult assistance may be needed at this point.
4. Loop the two large rubber bands together. Attach a paperclip to the end of one and put it through the hole at the bottom of the bottle.
5. Unwrap the other paper clip and make a small hook at the end. Reach into the bottle and take hold of the other end of the rubber band.
6. To hold the rubber band in place, tighten the hook. Push the wire through the hole in the lid and bend at a right angle so it is flat over the lid. Then wrap the end of the wire around the star.
7. When dry attach the black paper with painted stars to the outside of the bottle so it looks like space.
8. To play with the shooting star spinner toy twist the star until the rubber band is wound really tight. When you let go, it will spin around as it unwinds.



This activity is an example of potential and kinetic energy. As you are winding the spinner up it is potential energy, and when you let go and it is moving, it turns into kinetic energy! Potential energy is the energy stored within something while kinetic energy is the energy of motion.

Crystal Stars

You will need:

- Star cutter
- Jam jars
- 2 cups boiling water
- ½ cup borax
- 2 pipe cleaners
- 2 pieces thin ribbon or string (8 Inches in length)
- 1 craft stick



What to do

1. Bend the pipe cleaner round the cutter to make a star shape. Twist the pipe cleaner to close the shape where the wrapping started and cut off any extra pipe cleaner. Repeat for the second pipe cleaner so you have 2 star shapes.
2. Tie the thin ribbon or string around each star, then hang them from the craft stick.
3. Lower the 2 stars into the jar and rest the craft stick across the top of the jar. Ensure the stars hang freely – not touching each other or the sides of the jar.
4. Pour 2 cups of boiling water into a glass jug. Add the borax and stir until dissolved. If the borax does not dissolve, microwave the mixture for 30 seconds at a time, stirring each time, until the water is completely clear.
5. Carefully pour the hot borax mixture into the jar. Fill the jar until the top of the star, but no higher. (Crystals will form on the ribbon if it is below the liquid)
6. Leave them for 6 to 24 hours and watch the borax crystals grow!



Shooting Star Wishes

You will need:

- Card or paper
- Strips of tissue paper
- Star shape for tracing – or draw free-hand
- Marker pens
- Scissors
- Glue

What to do

1. Draw or trace a star shape onto the card and cut out.
2. Write your wish on the star.
3. Glue 3 strips of tissue paper onto each star as shown and allow to dry.
4. Fold the star in half, then fold back the 2 sides in half again – this creates a paper plane look.
5. These paper wishing stars are ready to fly. Send your wishes to the stars. Fly them to each other or head outdoors to send these wishes to the sky!



Starry Night Painted Toast

You will need:

- Bread
- Milk
- Food colouring (blue and purple)
- Cheese
- Cutters



What to do

1. Add the colouring to a small amount of milk.
2. Use the coloured milk to paint the bread like a night sky.
3. Toast the slice of bread.
4. Cut stars from a slice of cheese and add to the toast slice.

Woven Star Decorations

You will need:

- Thick cardboard
- Scissors
- Wool or thread

What to do

1. Cut 12cm diameter circles from the cardboard.
2. Then cut slots around the edges at equal distances – try 8,12 and 16 slots (mark with a ruler if necessary).
3. Ensure the end of a piece of wool is securely in a slot and start wrapping. Switch colours if wanted.
4. There are lots of different patterns you can make depending on how many points your star has. The pattern will look different on each side of your star.
5. Make a hole in the outside rim and thread with wool so the star can be hung up.



Magic Cocktail Stick Star

You will need:

- 5 wooden cocktail sticks
- Dropper or a drinking straw
- Water

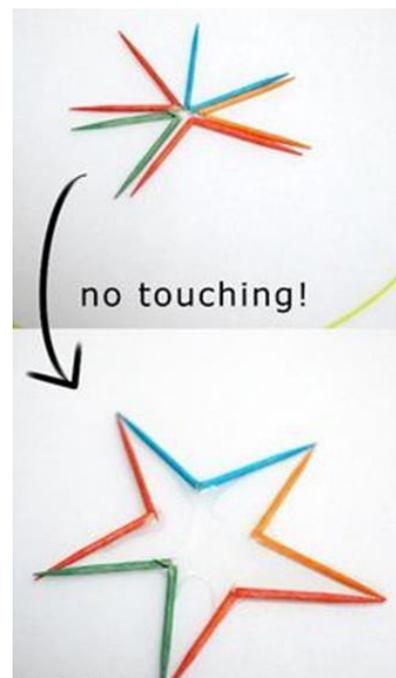
What to do

1. Bend 5 cocktail sticks in the middle but do not break them completely.
2. Place the sticks in a circle with the broken points touching each other as shown.
3. Carefully put a few drops of water in the middle using a dropper or a straw.
4. Now wait and watch how the cocktail sticks glide into place to form a star!

Cocktail sticks are made of dry wood. By bending the sticks in half some parts of the wood fibres were stretched while other parts were compressed. When dry wood absorbs water, the bent wood fibres expand and unbend. As the cocktail sticks straighten out, they push against one another opening the inside of the star. Wood absorbs water by capillary action, adhesion, and cohesion.

Capillary action, the ability of a liquid to flow in narrow spaces against gravity, occurs in plants because water is attracted to the sides of the tiny straw-like capillaries (xylem).

As the water molecules move into the xylem, they pull additional water molecules with them because water molecules are "sticky." This process is called cohesion and occurs because water molecules are polar, they have a slight positive charge on one side and a negative charge on the other.



Star Constellation Game

You will need:

- Star constellation pictures (can be found on internet)
- Card
- Scissors
- Hole punch
- Jam jar lids
- Glue
- Small round sweets or silver ball decorations

What to do

1. Print out pictures of star constellations and cut into circles.
2. Glue these onto circles of card. Then use a hole punch to punch out each star in the constellation.
3. Carefully glue the constellation circle to the inside of the jam jar lid and allow to dry.
4. Add as many round sweets as there are stars in the constellation to the lid.
5. Tilt and move the game around until you get each sweet settled on a star.
6. Each constellation is its own unique challenge. When there are fewer sweets to roll into place, it is a little easier, but it still takes time.



MOONS

Moon Cakes

You will need:

- 100g Butter unsalted
- 200g Plain Flour
- 2 tsp Baking Powder
- 75g Soft Light Brown Sugar
- 125g Raisins or other dried fruit
- 1 medium Egg
- 2 tbsp Milk added gradually

What to do

1. Preheat the oven to 200C, Gas Mark 6
2. Add the flour and baking powder to the margarine
3. Crumb the mixture with fingertips
4. Add in the brown sugar and raisins and mix
5. Beat the egg and pour onto the mixture
6. Mix together and add a little milk until you have a consistency similar to cookie dough
7. Line 2 baking trays with greaseproof paper
8. Divide the mix into 6 large or 12 small cakes and space out on the baking tray
9. Cook for 12 - 20 minutes until golden brown
10. Leave to cool
11. ENJOY!



Moon Sand

Moon sand also known as cloud dough is mouldable like wet sand, yet crumbly like dry sand. It crunches like a bean bag when you squeeze it but can be smashed to pieces.

You will need:

- 4 cups plain flour
- ½ cup baby oil
- Food colouring - optional

What to do

1. Place the flour in a container and add the oil and food colouring.
2. Mix together - your fingers are best for this.
3. Once mixed use in play



Moon Snack

You will need:

- Rice cake
- Banana
- Cream cheese
- Cheerio type cereal
- Paper plate

What to do

1. Spread the rice cake with cream cheese.
2. Cut the banana into slices.
3. Place the banana slices and some cheerio cereal on top of the cream cheese.
4. Your edible moon with craters is now ready to eat.



Moon Phases Learning Toy

You will need:

- 2 large clear plastic cups
- Black permanent marker
- pen
- 1-inch diameter yellow circle
- Black paper
- Glue and tape



What to do

1. Cut the black paper so that the height of the cup is the length of the paper and glue the yellow circle to the black paper.
2. Roll the black paper up with the yellow circle facing out and place in one plastic cup and secure in place. Ensure the circle is not covered with paper.
3. Put this plastic cup into the second plastic cup.
4. Now you need to write on this cup. Underneath the yellow circle write full moon, do not write too large or you will not have enough space for all 8 phases of the moon.
5. Imagine the cups like a clock, with the full moon at the 12 o'clock position. Turn the cup so that the yellow circle is now at the 3 o'clock position. Colour the left half of the yellow circle black. Name this as half moon or first quarter moon.
6. Turn the cup again so the yellow circle is in the 6 o'clock position. Colour the whole of the circle and label new moon.
7. Turn once more so that the yellow circle is now in the 9 o'clock position. Colour the right half of the circle and label half moon or last quarter moon.
8. Turn the cup so that the yellow circle is now in the 1.30 position. Draw a crescent on the left of the circle and colour in. The right uncovered part of the yellow circle will appear as the (waxing) gibbous moon. Label as such.
9. Turn the cup so that the yellow circle is now in the 4.30 position. Draw a gibbous (less than the full circle but larger than a semicircle) on the left of the yellow circle and colour in. The right uncovered part of the yellow circle will appear as the (waxing) crescent moon. Label as such.
10. Turn the cup so that the yellow circle is now in the 7.30 position. Draw a gibbous (less than the full circle but larger than a semicircle) on the right of the yellow circle and colour in. The left uncovered part of the yellow circle will appear as the (waning) crescent moon. Label as such.
11. Turn the cup so that the yellow circle is now in the 10.30 position. Draw a crescent on the right of the circle and colour in. The left uncovered part of the yellow circle will appear as the (waning) gibbous moon. Label as such.

The toy is now ready to be used to remember the phases of the moon.

Oreo Moon Phases Activity 1

You will need:

- Oreo biscuits
- Paper plate
- A kid-friendly knife or craft stick

What to do

1. Separate 8 Oreo biscuits by slowly twisting the top and bottom biscuits apart. The biscuits without filling are not required and can be eaten.
2. Use the knife or craft stick to carefully remove a portion of the filling to recreate each moon phase.
3. The moon phases are:
 - a. New Moon: When the Moon is between the Earth and the Sun, the moon blocks the light from the Sun. Therefore, no part of the moon is visible from Earth.
 - b. Waxing Crescent: As the Moon continues to orbit Earth, it becomes visible again. This is called the waxing moon (waxing means that it is getting bigger), and the initial phase is called the waxing Crescent. The waxing moon gets bigger every night until it reaches the First Quarter when we can see half of the Moon.
 - c. First Quarter: Half of the lit portion of the Moon is lit by the sun.
 - d. Waxing Gibbous: "Gibbous" means that more than half of the Moon is visible but not the entire circle.
 - e. Full Moon: When the Earth is between the Sun and the Moon, half of the Moon is lit. From Earth, we can see the full circle.
 - f. Waning Gibbous: More than half of the Moon is visible and the lit portion gets smaller every day.
 - g. Third Quarter: The opposite half of the Moon is lit compared to the First Quarter Moon.
 - h. Waning Crescent: Less than half of the Moon is visible and slowly decreases to the New Moon.



Oreo Moon Phases 2

Do you ever think why the moon does not always look like a circle? Where does all its light go when it looks like it is missing part of the circle? Find out in this fun activity.

You will need:

- 1 medium ball (baseball-sized)
- 1 larger sized ball
- Torch or a desk lamp
- Red dot
- Oreo biscuits
- Paper



What to do

1. The torch will act as the sun, the medium ball the moon and the large ball the earth.
2. The Earth spins on its axis to create night and day. This can be shown by fixing the red dot on to the large ball and spinning it in front of the torch sun. When it was night, the red dot was away from the sun.
3. As the earth keeps rotating, the sun rose on the red dot and it was day.
4. The moon did not make its own light but simply reflected the light from the sun.
5. The type of moon we see depends on where it is in relation to the earth and sun.
6. When the moon is on the opposite side of the earth as the sun, all the sun's light is reflected so it is a full moon.
7. When the moon is slowly rotated around the earth and ends up between the earth and the sun, the side of the side of the moon facing up in the sky is in a shadow, causing a new moon.
8. You can copy what you see by removing the filling from the Oreo biscuits to match the visible parts of the moon from Earth.
9. As the moon continues its orbit around the earth, the visible part grows. When the visible part gets bigger, it is called waxing. When it is getting smaller, it is called waning.

The moon takes on average 29 days, 12 hours, and 44 minutes, about the length of a month to go around the earth.

3-D Light Up Moon Craft

You will need:

- Toilet tissue paper
- PVA glue
- Battery operated t-light
- Cup with water
- Small bowl to set your balloon on
- Balloon
- Paint brushes
- Tablecloth or newspaper (to cover work area)



What to do

1. Cover work area with either a tablecloth or newspaper.
2. Tear the toilet tissue into pieces.
3. Mix equal parts of water and glue together.
4. Blow up a balloon to your desired size. Place on the bowl to keep it steady.
5. Cover the balloon in small sections with the glue mixture.
6. Add a piece of tissue to the glue. Carry on doing this until the balloon is completely covered.
7. Leave a small area at the bottom of the balloon uncovered and allow to dry for about 4 hours.
8. Now add a second layer of glue mixture and tissue to the balloon. Allow to dry overnight.
9. Use a pin or scissors to pop the balloon. Remove the balloon once fully deflated.
10. Place the paper-mâché shape over the battery t-light which is switched on.
11. Your moon will glow in the dark.

Puffy Paint Moon

You will need:

- 1 cup of Shaving Cream
- ½ cup of PVA glue
- Black paint, or food colouring
- Paint brushes
- Paper plate
- Marbles

What to do

1. Mix two parts shaving cream to one part glue.
2. Add some black paint to make it grey.
3. Paint a thick coat of the mixture all over the paper plate this will be the moon.
4. To make craters drop marbles from different heights onto the surface of the moon.
5. Once the paint dries you will have some amazing craters on your moon.



Phases of the Moon Wreath

You will need:

- Paper plate
- Marker pens
- Paint
- Black paper
- White card
- Glue
- Black wool
- Hole punch
- Scissors

What to do

1. Cut the middle from the paper plate and paint it black. Allow to dry.
2. Use pens or paint to draw Earth either on the middle of the plate or a piece of white card and allow to dry if relevant.
3. Cut out 8 white and 5 black circles. Cut up the black circles to make different moons, a full black circle for the new moon. Two with a small sliver off to make the gibbous and crescent moons and one in half to make the quarter moons.
4. Glue the black moons to the white card circles.
5. Use the hole punch to make 6 holes around the cut-out middle of the plate and around the outside of your Earth.
6. Use the wool to lace the Earth to the paper plate, ensure the Earth stays in the centre of the plate.
7. Glue the moons on the paper plate around the Earth as shown.



LEGO Moon Phases Demonstration

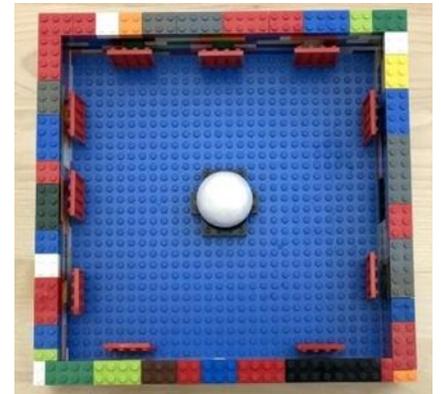
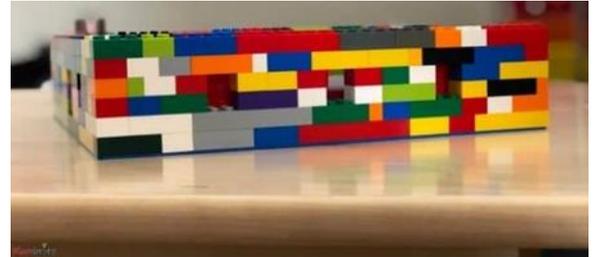
This activity explains why the moon looks different every night as the moonlight we see is the sun's light reflected off the moon's surface. A LEGO box with windows on all sides allows light to enter and the different moon phases to be seen.

You will need:

- LEGO bricks
- Styrofoam ball
- 2 LEGO baseplates
- Torch

What to do

1. Stack LEGO bricks along the four edges of the baseplate. Then for 3 of the sides, leave three gaps in the walls for the observation holes.
2. For the last side, build 2 holes for observation, and one big hole for the light source.
3. In the middle of the baseplate, build a small structure to hold the Styrofoam ball. This prevents the ball from rolling around when you shift the box and makes the ball at eye level when you look inside the observation holes.
4. To make sure that it is dark enough inside the LEGO box, place small LEGO plates vertically on the inside of the "windows" to block the light. Block all the windows except for one. The big light source window should always be open.
5. Put the ball on its structure. Place the second baseplate on top to block out the light and turn on the torch.
6. By looking into each observation hole (remove one window baseplate at a time and then replace) you will see how the light changes shape depending on the position relative to the Moon (Styrofoam ball) and the Sun (light source). You should be able to see all the different moon phases.
7. When the Moon is between the Earth and the Sun, there is no light on the near side of the Moon from the Sun. Therefore, the Moon is not visible to the unaided eye.
8. You can see the Crescent Moon on either side of the LEGO box, where there is light only on a slender fraction of the Styrofoam ball.



Rockets

Fruit Rockets

You will need:

- Kebab skewer
- Strawberry
- 3 blueberries
- 2 grapes

What to do

1. Put your fruit onto your kebab skewer to make a rocket
2. Copy the picture if you need to
3. Eat and enjoy :)

Could you try different fruits to get the same effect?



Straw Rockets

(This would cover 'Blast Off' UMA for Rainbows from Have Adventures Theme Award).

You will need:

- Two straws of different thickness
- Paper
- Sticky Tape
- Scissors
- Pens/Pencils

What to do

Look at youtube to see what a rocket launch is. Find out what it is that comes out of the bottom of the rocket. Have a go, crouch down really small and jump up, you've just launched yourself like a rocket. Make a straw rocket.

1. Using the paper, make a rocket shape.
2. Cut it out and using the sticky tape stick it to the larger straw.
3. Make sure you close the top end of the straw with tape - but leave the bottom open.
4. Cut the larger straw and place it on one end of the thinner straw.
5. Blow through the thinner straw to make your rocket fly.



Roll Rockets

You will need:

- Toilet Roll tube
- Paper
- Pens
- Coloured paper
- Scissors
- Glue/ Sticky Tape

What to do

1. Cut a piece of paper to cover your toilet roll tube.
2. Using sticky tape or glue cover your toilet roll tube.
3. Draw around a glass on your coloured paper.
4. Cut it out and cut a slit to the centre of the circle.
5. Make it into a cone shape to sit on top of your rocket.
6. Decorate your rocket with aliens, or astronauts or anything else you'd like to send in to space.
7. Cut a strip of coloured paper the length of the tube, you'll use this for the fire bits at the bottom.
8. Now cut lots of little slits along the length of the strip (make sure you leave some to stick into your rocket).
9. Stick your fire into your rocket and the cone to the top.



Pizza Rockets

You will need:

- Half a baguette
- Grated cheese
- Pizza topping
- A few slices of red, orange, yellow peppers
- Pepperoni

What to do

1. Spread pizza topping all over your half baguette.
2. Add 3 slices of pepperoni for the windows of the rocket.
3. Sprinkle grated cheese over the top and heat in the oven until all the cheese has melted.
4. Add slices of pepper to the bottom as flames.
5. Let it cool slightly and the EAT and ENJOY!

Alternatives:

- You can make your own pizza dough to use instead of a baguette.
- Shape your pizza dough or cut your baguette into the shape of an alien.
- Use different toppings to create your alien. (use your imagination)



Banana Rockets

You will need:

- Banana
- Whipped cream
- Pineapple rings

What to do

1. Cut the banana in half lengthwise and cut off one end. Lay flat on a plate.
2. Cut a pineapple ring and place the pieces next to the banana near the flat end.
3. Put whipped cream at the bottom for the fire.
4. EAT and ENJOY!



Challenge:

Can you create other space themed snacks using fruit?

Edible Rockets

You will need:

- Hot dogs or sausages
- Kebab sticks
- Ready roll pastry
- Cocktail sticks
- Cheese slices

What to do

1. If using sausage's part cook these beforehand.
2. Roll out the pastry and cut into strips.
3. Wrap a strip of pastry around the hot dog and place in the oven to cook.
4. Cut the cheese into triangles as shown.
5. Allow hot dog rockets to cool and attach cheese with cocktail sticks.



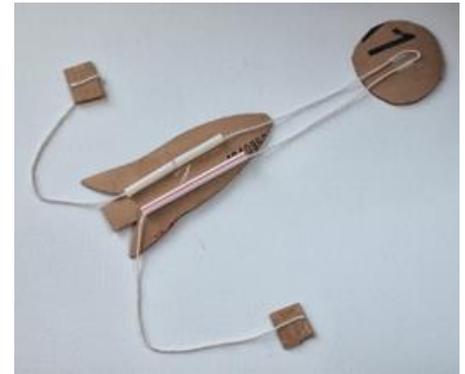
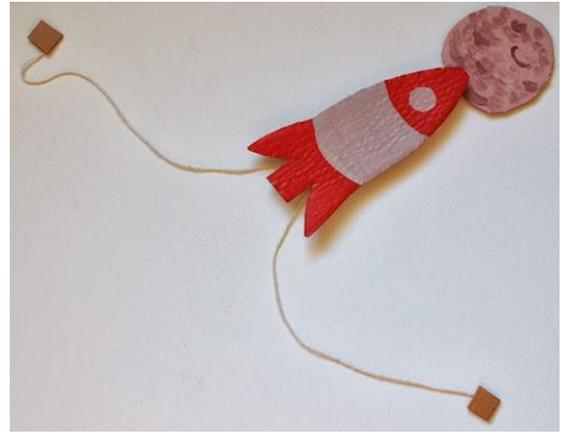
Cardboard Spaceship Climbing Toy

You will need:

- Corrugated card
- Straw
- String
- Paint
- Mod Podge or PVA Glue
- Tape
- Scissors

What to do

1. Cut out the following from the corrugated card: spaceship, moon, and two small rectangular stopper pieces.
2. Paint the spaceship and the moon. Allow to dry.
3. Once dry cover with Mod Podge or PVA glue for protection and allow to dry.
4. Cut the straw in half and tape to the back of the spaceship as shown.
5. Fold a long piece of string in half. Tape the middle of the string to the back of the moon.
6. Thread each end of the string through the straws and then tape the ends to the cardboard rectangles so the spaceship does not fall off.
7. To operate the toy, simply attach the moon to the wall or a doorknob. When the two brown tabs are pulled apart, the spaceship will shoot straight to the moon.



Squeezy Bottle Rocket

These easy to build rockets are perfect for investigating how the angle a rocket is launched from affects its flight.

You will need:

- Empty water bottles with a sports cap
- Cardboard
- Straws - one wider than another
- Scissors
- Glue/sellotape
- Blu tack or Plasticine

What to do

1. Push half of the thinner straw into the sports cap on the bottle. Seal around the straw and sports cap with blu tack or plasticine. This will be the bottle launch device.
2. Check that air is only coming out of the top of the straw and not the sides by squeezing the bottle.
3. Cut a rocket from the cardboard and colour if required.
4. Seal one end of the wider straw using sellotape. This straw must fit over the top of the thinner straw. Blow down the straw and make sure no air can escape from the top.
5. Attach the rocket onto one side of the straw with double sided tape.
6. Place the rocket onto the bottle launcher and squeeze the bottle hard. Your straw rocket should shoot into the air.
7. Try launching the rocket at different angles and measure how far it travels each time. Remember to try to use the same squeezing force for each launch to make any investigation a fair test.
8. Try adding extra weight to the straw rocket by adding a small amount of plasticine or a paperclip to the end. What do you think will happen?



You should find that your straw rocket flies farther if you launch at an angle rather than straight up. This is because of gravity and the forward force created by the rocket launcher act together to create a curved flight path. When you squeeze the bottle air is forced out of the straw in the bottle and pushes against the rocket straw (which is sealed at one end). The force of air on the rocket straw makes it fly through the air.

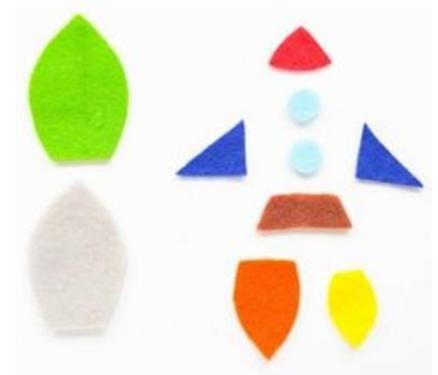
Felt Rocket

You will need:

- Felt various colours
- Thread
- Scissors
- Glue
- Needle

What to do

1. Use scissors to cut out felt shapes as shown.
2. Place the two circles onto the bullet shape (rocket base) and stitch round the sides to attach. This will be the front of the rocket.
3. Place the small flame piece on the big flame piece and stitch together.
4. Take the top part of the rocket and place on the rocket front piece. Put the other bullet shape underneath and ensuring they are all level, stitch around the sides to sew them together.
5. Do not stitch all the way towards the bottom side, place the 2 side parts (the triangles) and the flame piece between the rocket bases.
6. Now place the trapezium shaped pattern along the bottom side of the rocket base (above the flame).
7. Continue to stitch along the side to attach all felt pieces together. Securely tie the thread.
8. If you do not want to sew the pieces of felt together, they could be glued using UHU type glue. If you do not have felt, try the activity with craft foam.



Aliens

Cardboard Aliens

You will need:

- Toilet /kitchen roll inner tube
- Green paint or felt pen
- Googly eyes/eye stickers
- Pom poms
- Green pipe cleaners
- Black/white and green paper

What to do

1. Using paint or felt pen colour your cardboard tube and leave to dry.
2. Now create your alien.
 - Use pipe cleaners with pom poms on top for antennae (How many will your alien have)?
 - Stick on googly eyes (you might give your alien only one eye or two or even more).
 - Cut out ears, mouth and teeth and stick on.
3. What else can you add to your alien?
4. You could tie some string to the alien's head and hang it up.
5. You could make different coloured aliens.



Flying Saucer Aliens

You will need:

- Coloured paper/thin card
- Lolly sticks
- Googly eyes/sticker eyes
- Scissors
- Glue
- Rulers
- Pencils and felt pens

What to do

1. Using different coloured paper/card cut out the shapes for the flying saucer (a semicircle and a rounded rectangle).
2. Choose another colour and cut out 4 circles for windows making sure they are the right size to fit along the bottom part of your flying saucer. Stick them on.
3. In a different colour cut out 4 smaller circles and stick onto the larger circles.
4. Stick the bottom part of the flying saucer onto the top part to create the flying saucer.
5. Using the same colour as the bottom of the flying saucer cut out 2 narrow strips and 2 small circles (you could use a hole punch to make the circles).
6. Stick a small circle to the end of each of the strips.
7. Stick the strips to the back of the flying saucer at a slight angle for legs.
8. Cut out a small semicircle for the alien's head and a thin strip for his antennae. (Aliens are often thought of as being green, but your alien can be any colour you like).
9. Fold the strip in half and stick to the back of your alien's head. Stick your alien onto your flying saucer.
10. Stick on a googly eye. (You can use eye stickers or felt pens and you can add as many eyes as you like. No-one knows what an alien really looks like so use your imagination and be creative). Use felt pens to draw a mouth if your alien is having one.
11. Stick your lolly stick to the back and let your flying saucer fly through space.



Challenge:

- Can you make more space themed puppets and act out your own story with them?
- Suggested space themed puppets: planets, stars, astronauts, rockets, sun, moon

Handrint Aliens

You will need:

- Green paper/thin card
- Scissors
- Googly eyes/sticker eyes
- Pencil
- Felt pens

What to do

1. Draw round your hand and carefully cut it out
2. Add googly/sticker eyes (you choose how many and where you put them).
3. Use felt pens to add mouth and nose if you want to.
4. Cut out and add antennae if you want to.



Challenge:

Can you make a whole family of aliens? Be creative and make them different colours. Draw round your hand with your fingers close together or wide apart to make them look different. Use paint to make a handprint. Let it dry before adding the eyes etc. Make a paint handprint keeping one or more fingers out of the paint.

Alien Ship

You will need:

- Coloured paper plate
- Scissors
- Card
- Glue
- Buttons
- Stapler
- Wobble eyes

What to do

1. Fold the paper plate in half and staple either side of the fold line, so the paper plate stays in shape.
2. Glue the buttons around the edge of the plate to make the ships lights.
3. Cut an alien from coloured paper and glue this to the front of a dome shaped piece of card, this is the cockpit of the spacecraft.
4. Glue the cockpit to the paper plate as shown.
5. Your rocking paper plate UFO is now complete.



Edible Spaceship

You will need:

- Cucumber
- Cheese slices
- Cherry tomatoes
- Water biscuit

What to do

1. Cut cucumber into chunks, tomatoes in half and cheese into circles.
2. Assemble the spaceship as shown. The biscuits rest on the cucumber chunks.



Alien Slime

You will need:

- 5 oz clear glue
- ½ cup water
- Green food colouring
- ½ tsp baking soda
- 1 tbsp contact lens solution
- 3 wobble eyes
- Container
- Blue paper

What to do

1. Pour the glue into a container and add ½ cup of water and mix until the glue has been broken down by the water.
2. Add the colouring and mix well.
3. Mix in ½ tsp of baking soda. The baking soda will determine the thickness of the slime.
4. Add in a 1 tbsp of contact lens solution and mix. It will begin to thicken instantly. Just keep stirring! Let it sit for a minute to let the activator work.
5. When it pulls away from the bowl, pull it out and knead. It may be still sticky. Knead it for a few minutes and, if necessary, add a little bit more contact lens solution. Be careful not to over activate it!
6. Place in the container and add 3 wobble eyes to the top.
7. Tape a strip of blue paper to the container.



Alien Pudding

You will need:

- Oreo or bourbon biscuits
- Yogurt or ice cream
- Green jelly
- Large marshmallows
- Green sugar strands/sprinkles
- Green straws
- Clear beaker

What to do

1. Place the biscuits into a plastic bag and crush them into pieces. Put the crushed biscuits into the bottom of the beaker. Cover with yogurt or ice cream.
2. Repeat the two layers and then top with green jelly.
3. Insert a marshmallow into one end of a straw.
4. Add a small amount of yogurt or melted ice cream to two marshmallows and dip into the sugar strands to create the alien's eyes.
5. Insert the straws into the pudding. It's now ready to eat.



This could also be made using whipped cream, Angel Delight, granola, fresh fruit and different coloured jelly and sugar strands.

Puzzle Piece Aliens

You will need:

- Puzzle pieces
- Wobble eyes
- Green paint

What to do

1. Paint puzzle pieces, allow to dry. Glue on wobble eyes. Decorate with marker pens.



Alien Critter

You will need:

- Wobble eyes
- Large green pom-pom
- Gold pipe cleaners
- Green felt
- Scissors
- Glue (UHU type)

What to do

1. Cut a heart from the felt, these will be the feet of the alien.
2. Glue the pom-pom to this felt heart and allow to dry.
3. Cut the pipe cleaner in half and glue to the top of the pom-pom - these will be the antennae.
4. Cut a small clover, heart, or another unique shape out of the green felt, add glue and press to one of the antennae.
5. Add glue to both the wobble eyes and stick them to the pom-pom.
6. Allow to dry.



Balloon Alien

You will need:

- Balloons
- Card
- Sellotape
- Marker pens

What to do

1. Inflate two balloons and join as shown.
2. Cut two strips of card and concertina fold, these will be the legs. Fix in place with sellotape.
3. Repeat for arms with two shorter strips of card.
4. Use a marker pen to add a face - eyes, nose, and mouth.



Alien Spaceship

A good activity to recycle plastic!

You will need:

- *Plastic Plates*
- *Plastic Bottle*
- *Large Pom-Poms*
- *Small Pom-Poms*
- *Wobble Eyes*
- *Bottle Caps*
- *Pipe Cleaners*
- *Glue (UHU type)*
- *Scissors*



What to do

1. *Glue three small pom-poms to the top of a large pom-pom. Add a wobble eye to each small pom-pom and glue in place.*
2. *Shape the pipe cleaner into a letter "V" then bend the ends to form tiny feet.*
3. *Glue the large pom-pom (alien body) to the pointy end of the "V".*
4. *Cut a tiny piece of pipe cleaner and shape into an "O" to create the alien's mouth. Or you can make the alien smile and glue in place.*
5. *Glue 2 plates together rim to rim, to create a spaceship.*
6. *Glue the "feet" of the alien to the centre of the top of the spaceship.*
7. *Cut the plastic bottle so it is tall enough to hold the alien.*
8. *Place the bottle over the alien and glue in place. Allow to dry.*
9. *Glue bottle caps all around the top plate as shown.*
10. *Ensure the spaceship is fully dry before moving.*



Astronauts



Tube Astronaut

You will need:

- Empty Toilet Tube or similar
- White paper
- Coloured paper
- Pens
- Glue
- Scissors

What to do

1. Cover the tube in the white paper and glue in place.
2. Cut an oval shape for the face from coloured paper and add eyes, a nose and a mouth. Glue this near the top of the tube.
3. Make the arms and legs by taking two strips of paper and glue them together at right angles. Take turns accordion folding them one over the other before gluing them together at the end. Repeat so you have two arms and two legs.
4. Cut out two oversized space glove shapes and two big space boots. Glue them to one end of each spring and attach the other end to the tube.
5. Cut coloured circles or strips of paper and add to the tube as shown.

Astronaut-felt-finger-puppets

You will need:

- Felt – white, blue, black
- ¼ inch ribbon
- Fabric paint
- Craft stick
- UHU type glue



What to do

1. Cut a circle of white felt and a smaller circle of black felt. This will be the helmet and face.
2. Glue the black circle onto the white and allow to dry.
3. Cut out two body shapes in white felt.
4. Cut pieces of ribbon and lay across one body shape as an X and glue in place. Leave ends free for the time being.
5. When dry place the other body shape on top of the first and glue round the edges, allow to dry.
6. Bring the ends of the ribbon round to the front of the astronaut. Hold in place by placing a small rectangle of blue felt on top.
7. Glue the white circle to the top of the body, allow to dry.
8. Decorate the blue felt with fabric paint. This is the astronauts control panel.
9. Your astronaut puppet is ready for use, either put on a finger or insert a craft stick.

Astronaut Photo Frame

Equipment

- Card people
- Card – red, grey, blue, orange
- Glue
- Scissors
- Photographs

What to do

1. Cut a strip of red card the width of the card person and glue in place.
2. Cut four strips of red card the width of the legs and glue in place as shown.
3. Cut a further four strips of red card and glue on the arms.
4. Cut another strip of red card and glue at the neckline.
5. Cut out a rectangular shape from grey card and stick to the centre of the card person shape. Cut out and add blue and yellow card circles to it to create buttons.
6. Cut an oval shape from grey card, slightly smaller than the size of the head, and stick this to the head section of the person shape.
7. Trim the photograph as it needs to be smaller than the grey oval and glue in place.



Astronaut Jet Pack

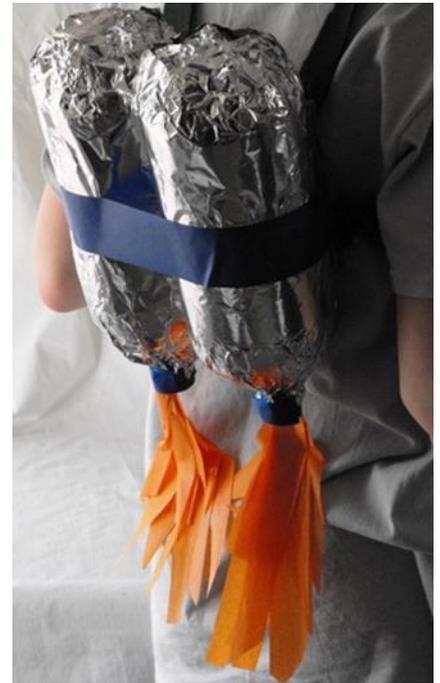
Have fun in space with your own astronaut jet pack.

Equipment

- 2 empty plastic water/soft drink bottles with lids
- Corrugated cardboard
- Spray paint or aluminium foil
- UHU type gun
- Tape
- Tissue paper – orange, yellow
- 3 feet of 1" wide ribbon, approximately
- Scissors

What to do

1. Cut a square piece of corrugated cardboard approximately 8 inches by 8 inches. This is the base onto which you will staple the shoulder straps and tape the jets. It should be small enough not to be seen behind two soda bottles lying side-by-side.
2. Either spray the bottles with paint and allow to dry or cover with aluminium foil and secure in place.
3. Cut two pieces of ribbon long enough to be shoulder straps and attach to the top and bottom of the corrugated cardboard square.
4. Glue the bottles together and allow to dry, add extra ribbon or tape to give more rigidity. Attach to the cardboard.
5. Cut strips of tissue paper into 'flames' which can be either glued straight into the neck of the bottles or stapled together before fixing to the bottle lids.
6. The jet packs are now complete and ready to take you into space!!!!!!



Astronaut Training School

Before astronauts are launched in spaceships or rockets to explore space, they undergo lots of training. Why not try these activities.

1. Jumping Jacks
 - a. Complete 10 Jumping Jacks as astronauts need to be able to jump around.
2. Gravity Lifts
 - a. Lift a giant "moon rock" (large beach ball) 3 times.
3. Toe Touches
 - a. Can you touch your toes 4 times?
4. Balance Counts
 - a. Balance on one leg and slower count to 8
5. Line Hops
 - a. Hop side to side over a long rope.
6. Tunnel Crawl
7. Crawl under netting or pop up tunnel as fast as possible.
8. Space Walk
 - a. Walk slowly as though walking in space or on the surface of the moon.
9. Can you think of any others?

Badge ordering - SPACE

You can order badges in two ways, either by cheque or electronically

Postage costs:	
1-15 Badges	= £1.00
16 - 30 Badges	= £1.50
31 - 50 Badges	= £2.00
51+	= £3.00

Paying by cheque:

Please complete the details and post this form with full payment

Leader name

Unit name

Address to post badges to

.....

.....

.....

Contact email address for any queries

Number of badges (£1 each)

Postage at

Total

Make cheques payable to
4th Northumberland Heath Rainbows

Post to:
V Whitehead
58 Westfield Road
Bexleyheath
Kent
DA7 6LR

Paying electronically:

We can take payments electronically via BACS or card payment.

If paying by card - order badges here: <https://4thnorthheath.com/product/space-fun/>

If paying by BACS please email the following details to us (barnehurstrairainbows4@gmail.com) with subject: **Space Fun Badges** and we will provide you with bank details

- Leader name
- Unit name
- Address to post badges to
- Number of badges (£1 each)
- Postage at
- Total