



**3 TO 5 YEARS**

**WEEK 2 ACTIVITY GUIDES**



**Let's Explore Space**



# Astronaut Fun Faces

## #264

### AGE GROUP



3-5 years



Multiage

### HOW DO I SET UP & PLAY?

- Cut the middle circle from each paper plate so you end up with a circle 'frame'
- Encourage children to choose their frame. Turn over so the raised edge of the plate is facing up on the table (creating a hollow underneath)
- Invite children to use the craft materials to express themselves creatively to decorate their own 'astronaut helmet'.
- Tape a little cellophane on the inside of each plate opening so children can hold up to their face and look through. What can you see? What colour is it?

### EXTENDING LEARNING SPARKS

- Print out a photo of each child (big enough to cover the cellophane section in the plate) and help them to paste or stick their photo onto the plate so they can see themselves looking out the 'window' of the helmet.
- Tape the plate with photo to a paper bag (opening at the bottom) and encourage children to draw a body on the front of the bag. Open the bag, poke a hand in and use the paper bag astronauts to put on a puppet show together!

### WHAT MATERIALS DO I NEED?

- Pens, collage materials or stickers for decorating
- Coloured cellophane sheets
- Tape or paste
- Paper Plates (the ones with raised edges & dip in the middle - not flat)



Exploring Culture,  
Diversity &  
Community



Exploring & using  
my senses



# Clay/Dough Aliens

## #265



Baby & Toddler



3-5 years



6-12 years



Multiage

## HOW DO I SET UP & PLAY?

- Set out the dough or clay in large lumps along with the collage materials and other tools.
- Encourage children to manipulate the clay or dough into the shape they want their alien to take then begin designing and decorating.
- Take creations home to show off on a paper plate or piece of cardboard from the recycle bin

## EXTENDING LEARNING SPARKS

- Challenge older children to use only clay and toothpicks to create their alien.
- Help younger children to trace around their hand on paper then encourage them to use markers and stick-on eyes to decorate their alien.
- Provide access to recyclables and other open-ended resources for children to make their own alien spaceship.



Challenging my fine motor muscles



Exploring & using my senses

## WHAT MATERIALS DO I NEED?

- Clay (air dry or wet) or Playdough (try this easy microwave playdough or this 'air-dry clay' recipe to make your own versions fast)
- Assorted collage and open-ended materials to ignite creativity - googly eyes, yoghurt squeeze lids, pipe cleaners, twigs, leaves, buttons, Mr Potato Head pieces, patty papers, wool strands....anything you think children might find interesting to help them create an alien....or anything else they want to.
- Tools like toothpicks, straws, rollers etc to help manipulate dough or clay.



# Bottle Blast Off

## #266

### AGE GROUP



3-5 years



Multiage

### HOW DO I SET UP & PLAY?

- Work together to create a stable launchpad for the rocket - the easiest way to do this is for children to tape the pencils/craft sticks or similar to the plastic bottles so that the end of the pencil or stick will touch the ground when the bottle is upside down (but not the bottle).
- If you are using one bottle for each child they might like to decorate their 'rocket' before launch with pens or paint.
- For each bottle rocket, place one heaped tablespoon of bi-carb soda onto a piece of paper towel then fold into a tight roll.
- Set up the rockets ready to launch in a large open space then pour 1 cup of vinegar into the first bottle (I find using a funnel helps!).
- Poke the paper towel you rolled up earlier into the bottle opening then push in your foam cork.
- Quickly turn the bottle upside down onto the launchpad and all back away quickly so you can watch the launch.
- Sometimes it can take up to a minute to launch - don't allow children to go close and look into the bottle if it is taking awhile for safety sake.

### WHAT MATERIALS DO I NEED?

- Bicarb Soda (Baking Soda)
- Colored pencils/craft sticks or branches & Tape
- Vinegar
- Plastic bottles (2 litre soft drink/pop/soda bottles work well)
- Wine cork ( for younger children substitute the cork for a piece of foam like a pool noodle - it still works but gives less pressure than a cork and won't fly as high).
- Paper towel sheets
- Tape



Exploring Simple Math Concepts



Exploring Simple Science Concepts



# Bottle Blast Off

## #266

### EXTENDING LEARNING SPARKS

- For older children - replace the homemade cork with a wine cork for extra force and lift. You can also make the launching pad design a more complicated engineering challenge, perhaps using wood offcuts, loose parts, screws, and other tools.

### WHAT MATERIALS DO I NEED?

- Bicarb Soda (Baking Soda)
- Colored pencils/craft sticks or branches & Tape
- Vinegar
- Plastic bottles (2 litre soft drink/pop/soda bottles work well)
- Wine cork ( for younger children substitute the cork for a piece of foam like a pool noodle - it still works but gives less pressure than a cork and won't fly as high).
- Paper towel sheets
- Tape



Exploring Simple Math Concepts



Exploring Simple Science Concepts



# Sustainable Space Planting

## #267

### AGE GROUP



3-5 years

### HOW DO I SET UP & PLAY?

- Cut the top third of the bottle/s for your children if they are young (the top part should have the bottle opening!). Older children should be able to do this with a little guidance.
- Show children how to place the top section of the bottle they just cut into the bottom section of the bottle upside down. It will look like a funnel!
- Fill the bottle section of the bottle with water until it is about 1/4 of the way full.
- Poke a 20 cm piece of string or twine through the neck of the bottle. It needs to touch the surface of the bottom of the bottle. Coil the rest of the twine around the inside of the 'funnel' part of the bottle.
- Show children how to pull and stretch out the cotton balls until they are fluffy and then they can fill the funnel to the top with their cotton balls.
- Children can now pick their seed and poke into the cotton balls close to the centre and covered.
- Spray with water to dampen the wool (not saturate!) Explain how the twine is going to bring the seeds water by raising it from the bottom of the bottle and this is a basic hydroponic gardening process. What do they think will happen next?
- Place the space gardens in a sunny spot and watch the seeds grow. Children can decide when they need to add water to the bottom bottle again as they observe the process in action.

### WHAT MATERIALS DO I NEED?

- 2 litre soft drink bottle for a group project or 1 x 600ml plastic water bottle for each child.
- Cotton balls
- Heavy cotton string or garden twine - cut into 20cm lengths.
- Large bean seeds (I like to use 'Purple King' here in Australia as they are fast growing).
- Water



Looking After My Environment



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Exploring Simple Science Concepts



# Sustainable Space Planting

## #267

### EXTENDING LEARNING SPARKS

- Create the funnel as you did with the bottle in the first steps of this activity but this time add write some measurements in increments on the side of the bottle using a sharpie and place outside to use as a rain gauge.
- Ask children to investigate how else they could grow food without access to soil then try out some experiments or inventions.

### WHAT MATERIALS DO I NEED?

- 2 litre soft drink bottle for a group project or 1 x 600ml plastic water bottle for each child.
- Cotton balls
- Heavy cotton string or garden twine - cut into 20cm lengths.
- Large bean seeds (I like to use 'Purple King' here in Australia as they are fast growing).
- Water



Looking After My Environment



Exploring Culture, Diversity & Community



Exploring Simple Science Concepts



# Recycled Rockets

## #268

### AGE GROUP



### HOW DO I SET UP & PLAY?

- This activity is a fantastic engineering and problem solving activity so there really are no specific directions for setup except to make the materials easily available and allow lots of space and time for thinking and creating.
- Challenge children to draw or think of a design, choose their materials and then build their spaceship.
- When they are happy with their build they can personalise with paint, pens, shiny paper pieces or washi tape.

### EXTENDING LEARNING SPARKS

- Set up a prompt in the block area inviting children to build a launchpad for their new space ship.
- Set up a challenge...Who can make a flying saucer using 2 paper plates and some tape? (Place one plate on top of the other with a hollow section in the middle then tape together. Decorate then throw!). Or perhaps the children will come up with a different idea!

### WHAT MATERIALS DO I NEED?

- Loose parts and items from your recyclables collection. Some suggestions include paper towel rolls, yoghurt cups, yoghurt squeeze lids, cotton reel cones, plastic/paper plates, lids, cups and bowls.
- Shiny paper (optional)
- Masking tape
- Paint, markers or washi tape



Challenging My  
Gross Motor  
Muscles



Looking After My  
Environment



# Sensory Moon Walks

## #269

### AGE GROUP



3-5 years



Multiage



Baby & Toddler

### HOW DO I SET UP & PLAY?

- Pour sand into a shallow tub or deep tray. Smooth out the surface.
- Add pebbles and set up figurines and cars or other materials you are using to invite 'play on the moon'.
- Add some pictures of the moon around your sensory tray or tub or bury a few of the moon's surface underneath the sand for children to find.
- Show children how to make 'footsteps' and tyre tracks in the surface - I wonder what marks are left on the moon today?
- Drop stones into the sand like asteroids and examine the different 'craters' they leave on the surface. See if children can find real craters on the printed images. Step back and let children just have fun with their senses - there is no right or wrong way to play with a sensory tray!
- **For younger toddlers just spread a little sand out on a tray and add a few cars for them to drive through and make patterns. Supervise closely so kinetic sand isn't going into mouths.**

### WHAT MATERIALS DO I NEED?

- Kinetic Sand (or just plain sand if you don't have kinetic)
- Small garden pebbles
- Figurines and cars/trucks (doesn't have to be space themed!)
- Any small loose parts that will leave an imprint in the sand.
- Pictures of the moon and astronauts from the Curiosity Spark Space Printables Pack (optional).



Challenging My  
Gross Motor  
Muscles



Looking After My  
Environment



# Sensory Moon Walks

## #269

### EXTENDING LEARNING SPARKS

- Watch some videos together of the moon landing. Can they see the astronaut's footprints?
- Set out playdough with materials that will leave imprints and patterns in the dough surface to explore.

### WHAT MATERIALS DO I NEED?

- Kinetic Sand (or just plain sand if you don't have kinetic)
- Small garden pebbles
- Figurines and cars/trucks (doesn't have to be space themed!)
- Any small loose parts that will leave an imprint in the sand.
- Pictures of the moon and astronauts from the Curiosity Spark Space Printables Pack (optional).



Challenging My  
Gross Motor  
Muscles



Looking After My  
Environment



# Sticky Wall Space Window

## #270

### AGE GROUP



3-5 years



Multiage



Baby & Toddler

### HOW DO I SET UP & PLAY?

- Print out a few stars and small planets for each child to stick on the 'space window.
- Tape some large square or circle shapes of contact paper down low on a wall, window or door with the sticky side facing out.
- If you want to add more of a dramatic play element you might like to add a frame around the sticky window using card or coloured construction paper. You might also like to put the printed porthole pictures with real pictures of space up around the sticky windows.
- Spread out the star and planet pictures you have cut out then encourage children to stick onto the window to create a space scene.
- You can also do this down on the floor with babies and younger toddlers instead of vertically on a wall.

### EXTENDING LEARNING SPARKS

- Build a spaceship or space station using cardboard boxes and set up near the sticky space windows to invite role play.
- Stick stars on the floors and walls around the room with a little double sided tape and challenge children to find and then peel the stars off.

### WHAT MATERIALS DO I NEED?

- Sticky/Contact
- Paper
- Planet & Star images printed out from the Space Curiosity Spark Printables Pack
- Porthole pictures printed from the same pack
- Tape
- Cardboard or construction paper (optional)



Challenging My Gross Motor Muscles



Exploring & using my senses



# Shape Rockets

## #271

### AGE GROUP



3-5 years



Multiage

### HOW DO I SET UP & PLAY?

- Set out shapes onto a table with glue
- Give each child a rectangular piece of black cardboard
- Talk about the shapes and colours then encourage children to select the shapes they want to use for their rocket design.
- Paste shapes one on top of the other onto the cardboard base. Don't insist they need to build a rocket, this is just a prompt...perhaps they can create a tower or something entirely unique!
- Children can then choose and peel off stickers to personalise their shape creations.
- Provide access to pictures of rockets, towers and other buildings or materials made up of different shapes around the activity area.

### EXTENDING LEARNING SPARKS

- Walk around outside together and see who can find shapes in nature. Call them out whenever someone points to one.
- Print the shapes out on some firm card then tear sheets of alfoil and encourage children to wrap the foil pieces around their shapes until covered and shiny. Show them how to use their fingers to press, fold and smooth the foil. Punch a hole in the shapes and thread some wool through to create a mobile to hang near a window and reflect light.

### WHAT MATERIALS DO I NEED?

- Print and cut out some small and large coloured shapes from the Space Curiosity Spark Printables Pack . Alternatively you can simply draw your own on coloured card then cut out.
- Glue Sticks or paste
- Black Cardboard
- Stickers (optional)
- Books with images or photos of real rockets/spaceships



Challenging My  
Gross Motor  
Muscles



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# Space Food Rockets

## #311

### AGE GROUP



3-5 years



Multiage



6-12 years

### HOW DO I SET UP & PLAY?

#### *Curiosity Spark - What shape is a rocket/space ship?*

- Help the children to chop their chosen fruit into rough cubes or slices, wash and drain well.
- Show how to thread carefully onto their kebob sticks to build a rocket body then finish with a strawberry to create the rocket 'pointy nose'.
- Eat for morning or afternoon tea!

### EXTENDING LEARNING SPARKS

- Ask children to create a menu or recipe book of food items that astronauts could take into space. Provide recipe and space travel books for inspiration.
- Provide art materials for children to design labels and packages for imaginary space food - add to the dramatic play area.

### WHAT MATERIALS DO I NEED?

- Strawberries
- Watermelon
- Banana
- Grapes or any other fruit your children like currently in season
- Bamboo skewer/kebob sticks or clean paddlepop craft sticks



Exploring & using my senses



Building My Language & Literacy Skills



# Space Walk

## #272

### AGE GROUP



3-5 years



Multiage



Baby & Toddler

### HOW DO I SET UP & PLAY?

- This is a group activity to help make the concept of gravity more visual and will suit large or small groups just by modifying the number of blocks you set out.
- First explain or show children how astronauts need to be tied to a special cord that keeps them anchored to the ship otherwise they could just float away into space like a balloon
- Begin with everyone sitting on the mat/blanket/cushions to start as this becomes the space ship.
- Scatter the blocks around out in front of the children away from the 'ship' where they are sitting.
- Choose the first astronaut to go on a space walk and tie a long length of twine or ribbons around their waist. Pass the other end to their fellow astronauts and tell them to hold as their friend begins to 'float' out to pick up a block then help them come back in.
- If you have a large group I would suggest 2-3 children going out to walk at one time to ensure the other astronauts aren't growing bored while everyone has a turn!
- When all the blocks have been retrieved challenge children to build something together for their spaceship.

### WHAT MATERIALS DO I NEED?

- Blanket or mat to sit on (or your space dramatic play area).
- Twine or ribbon
- Blocks - at least 1 for each child.
- Pictures or video of real astronauts walking outside of a spaceship.



Challenging My  
Gross Motor  
Muscles



Exploring & using  
my senses



# Space Walk

## #272

### EXTENDING LEARNING SPARKS

- Set up the space ship with dramatic play props and open ended materials so children can extend on their play independently.
- Play tug of war with a rope outside to practice more pulling movements.
- Pretend to float in space to some slow music then walk forward quickly when the music changes to a faster tempo.

### WHAT MATERIALS DO I NEED?

- Blanket or mat to sit on (or your space dramatic play area).
- Twine or ribbon
- Blocks - at least 1 for each child.
- Pictures or video of real astronauts walking outside of a spaceship.



Challenging My  
Gross Motor  
Muscles



Exploring & using  
my senses



# Astronaut Fitness Circuit

## #273

### AGE GROUP



### HOW DO I SET UP & PLAY?

- Use some of the additional online video links provided in the **Empowered Educator Space Program Planner** to open a conversation about how astronauts exercise in space and why it is different to doing the same movements on Earth.
- With older children you can also investigate the impact of space on the human body. What facts can they find?. What do they wonder about how a body reacts in space? How do they fit exercise equipment in the space station? What stops it floating away?
- Take turns choosing a card then everyone performs the actions on that card for a set time period.
- Choose cards and actions that are age appropriate for your group.

### EXTENDING LEARNING SPARKS

- [NASA's Train Like an Astronaut Series](#) has videos and activity plans with physical and non physical activities to help children investigate and learn more about how bodies stay healthy in space.
- [Explore and choose an activity to try by clicking here.](#)

### WHAT MATERIALS DO I NEED?

- Print and cut out the gross motor obstacle activity cards from the Space Curiosity Spark Printable Pack
- Large open space to safely run and jump - preferably outside.



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Challenging My Gross Motor Muscles



# Space Food Smoothie

## #274

### AGE GROUP



3-5 years



6-12 years

### HOW DO I SET UP & PLAY?

- Help children to chop fruit and add to bowls (if you need to do separate smoothies for hygiene or allergy reasons) or one large bowl if you are able to do a group smoothie.
- Ask the children what they think might happen if you put all this fruit out on a plate in the space station....would it float away? Watch some of the videos I've linked too in your program planner to see how astronauts eat and prepare foods in space...some are very funny!
- Children use the tongs to choose the fruit they want in their smoothie then add to the blender cup with a little water.
- Astronauts often eat out of bags so they don't lose their food so after the fruit is blended into a smoothie you are going to encourage the children to drink their smoothie from a bag too.
- Pour a little of each smoothie mix into individual bags, seal tightly then snip off a corner to suck that smoothie out! You could also use cups with lids and a straw if you prefer.

### EXTENDING LEARNING SPARKS

- Make a list or picture collage of the foods we also often eat directly from bags or containers here on Earth....icecream, yoghurt sticks, fruit puree, baby food....what else?

### WHAT MATERIALS DO I NEED?

- Blender or stick mixer
- Assortment of fruit to chop (bananas, strawberries, kiwi fruit, melons etc are easiest for little hands to chop).
- Zip lock bags or reusable yogurt pouches
- Child safe knives or handheld choppers (you can get them from Kmart)
- A little water or milk
- Chopping boards
- Tongs



Exploring Culture, Diversity & Community



Building My Language & Literacy Skills



# Bedtime Buckle

## #275

### AGE GROUP



3-5 years



Multiage

### HOW DO I SET UP & PLAY?

- Astronauts need to be buckled into their spaceship when it takes off and they also need to be buckled in to sleep or they will just float around bumping into things while asleep!
- Encourage children to try buckling and unbuckling the belts and placing around their friends (a challenge for those fine motor muscles and self help skills!).
- Use the belt to buckle children into a chair to 'takeoff' - leave the belts and chairs out for the day and you will be amazed at the dramatic play that occurs! You might like to print some of the launch dashboard printables from the space pack.
- Roll a friend in a blanket then buckle them in with a belt so they can go to 'sleep' safely in space.

### EXTENDING LEARNING SPARKS

- Watch a video together of astronauts sleeping in the space station.
- Sit down together and ask children to share what helps them to get to sleep - is it a special toy, music, story....? Can they describe it?

### WHAT MATERIALS DO I NEED?

- A couple of belts from the op/thrift shop with buckles on them
- Blankets
- Chairs



Challenging My  
Gross  
Motor Muscles



Building My  
Language &  
Literacy Skills



# Space Story Stones

## #276

### AGE GROUP



3-5 years



Multiage



6-12 years

### HOW DO I SET UP & PLAY?

- Set all materials up on a table or low workspace.
- Ask children to choose a couple of stones (depending on how many you have available).
- Now they can choose one of the pictures you have cut out - explain they will need to compare the size of their stone and the picture they choose so that it fits.
- Show children how to dip their brushes into the watered down PVA mix and coat the top of their stone. Now they can stick their chosen image on top.
- Brush over the picture and underneath of the pebble with another layer of PVA wash.
- Lay the pebbles onto the baking paper sheets so they don't stick while drying. You might want to turn after a few hours and give the other side another coat of wash.
- When dry, encourage children to use the stones to create their own stories or add to their block play.

### EXTENDING LEARNING SPARKS

- Make a set of stones with duplicate pictures and play snap or memory games.
- Ask children to draw their own images and designs to glue onto pebbles. How will they use them?
- What else will stick to a stone? Experiment with different textures and materials to find out. Can you use tape instead of glue?

### WHAT MATERIALS DO I NEED?

- Smooth pebbles or landscaping stones that fit in your hand
- PVA glue mixed with a little water to thin the consistency to a wash in some small yoghurt or paint pots. You can use craft Mod Podge if you want but it's a lot more expensive - PVA works fine for me!
- Brushes
- A selection of small icon images cut out from the Space Curiosity Spark Printables Pack (you'll find astronauts, stars, planets etc).
- Baking paper



Building My Social & Emotional Health



Building My Language & Literacy Skills



# Gravity Jump & Drop

## #277

### AGE GROUP



3-5 years



Multiage



Baby & Toddler

### HOW DO I SET UP & PLAY?

**Curiosity Spark - What happens to things that go up? What pulls us down?**

- Introduce younger children to the basic concept of gravity with this activity that also gets the muscles moving!
- Start by doing some jumping - 1 foot or 2 feet depending on the age group. Then ask if the children can jump and stay up in the air. Make it a fun game with some fast-paced music.
- Now pass the 'light' scarves out (or inflated balloons) and show children how to throw them up in the air then try to catch them as they float back down. Do they come down fast or slow?
- Next, you can try throwing some soft but 'heavier' balls up into the air.
- Introduce new words and position concepts to the children as you play...heavy, light, up, down, fast, slow, gravity, high, low, pull.

### EXTENDING LEARNING SPARKS

- Stick some shapes or pictures on the wall and encourage children to jump up and touch them.
- Provide a variety of everyday objects or toys that will clearly fall at different rates. Children choose an object then hold it up high and drop it into a tub or basket on the ground. Ask older children to share what they notice about how each item falls, was it fast or slow?

### WHAT MATERIALS DO I NEED?

- Scarves
- Balls
- Space to jump around
- Music (optional)



Challenging My  
Gross  
Motor Muscles



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Math Concepts