



6 TO 12 YEARS

WEEK 2 ACTIVITY GUIDES



Let's Explore Space



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.



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



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



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



Exploring Culture, Diversity & Community



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



3-5 years



Multiage



6-12 years

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



6-12 years

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



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



Exploring & using
my senses



Liquid Sandwich

#312

AGE GROUP



HOW DO I SET UP & PLAY?

Curiosity Spark - Do all liquids mix together?

*You can do this as an educator led activity with one jar or give each child their own glass/jar to experiment and test predictions with.

- Add a few drops of food colouring to the water.
- Pour some water into the glass so it is around one-quarter full.
- Now pour the same amount of honey into the glass. Does the honey sit above or below the water?
- Pour the same amount of oil into the glass. Where does the oil sit?
- The layers are forming a 'liquid sandwich' and show children clearly that not all liquids mix together because they have different densities.

EXTENDING LEARNING SPARKS

- Try gently dropping a range of small objects into the glass, paperclips or marbles work well. Ask the children to make predictions...Where do you think they will float?
- What happens if you drop a fizzy tablet, such as aspro clear, into the water? How do the bubbles travel through the different liquids?

WHAT MATERIALS DO I NEED?

- A tall glass or clean jar
- Food colouring
- Small jug of water
- Cooking oil
- Honey



Exploring Simple Science Concepts



Exploring Culture, Diversity & Community



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.



Exploring Culture, Diversity & Community



Challenging My Gross Motor Muscles



Balloon Rocket Race

#313

AGE GROUP



HOW DO I SET UP & PLAY?

Curiosity Spark - Can air move things forward?

- Extend the length of the string as far as you can, depending on the space you have available. I recommend doing this activity outdoors so you can tie one end to a tree, fence or pole. If you have a large group you might like to setup a few string courses.
- Thread one straw through each string and tie up the other end. Slide the straw all the way to one end of the string.
- Blow up a balloon then carefully tape the balloon to the straw without letting the air out.
- Show children how to hold the neck of the balloon tightly together then let go! Watch as the balloon whizzes down the course!

EXTENDING LEARNING SPARKS

- Compare the speed and distance of differently shaped balloons.
- Blow up balloons and let them go on their own...what happens?
- Compare different types of string. You could use twine, yarn, thread...
- Setup the string course on an upward slope, a downward slope and flat. What's the difference in speed?

WHAT MATERIALS DO I NEED?

- Balloons
- String
- Scissors
- Straws
- Tape



Exploring Simple Science Concepts



Challenging my fine motor muscles



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



Moon Space Snacks

#314

AGE GROUP



3-5 years



6-12 years



Multiage

HOW DO I SET UP & PLAY?

Curiosity Spark - *Can you make a snack that looks like craters on a moon?*

- Set out a plate for each child with a rice cake, half a banana, a few cheerios and a scrape of cream cheese.
- Show children how to spread some cream cheese or peanut butter on their ricecake and chop round slices of banana to place on the top.
- Eat your moon crater snacks for morning or afternoon tea!

EXTENDING LEARNING SPARKS

- Make some edible 'constellations' by pushing pretzel sticks into mini marshmallows.
- Make fruit smoothies in the blender with the leftover fruit and a little yoghurt.

WHAT MATERIALS DO I NEED?

- Rice cakes (plain, no flavourings)
- Banana
- Cream cheese or peanut butter (depending on allergies)
- Plastic picnic knives (child safe)
- Chopping board and plates



Building My
Language &
Literacy Skills



Building My Social &
Emotional Health



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