

Become An Astronaut

GOAL: An introduction to space facts and allow the kids to step into the shoes of an astronaut.

PROGRAM AREAS COVERED: Key to Stem and Key to the Arts

MATERIALS REQUIRED:

GATHERING ACTIVITY:

- Balls

BUILDING A SPACESHIP:

- One 1m x 1m box (or bigger)
- Four small boxes of various sizes (at least)
- Box cutter or an utility knife
- One ½ m x ½ m box
- Tape
- Markers

LUNAR LAUNCH:

- Three pieces of string or yarn about 60 cm or 2 ft in length for each group of three
- A balloon

CREATING A UFO:

- Two paper plates per person
- Markers
- Glue
- Stickers or any other decorations or craft materials



TIPS: The large 1m x 1m box in the “Building a Spaceship” craft needs to be big enough to allow one or two kids to sit in it.

Box cutters or a utility knife are recommended because scissors don’t cut cardboard very well.

Demonstrate how to perform the “Lunar Launch” with a group of Leaders before you allow the kids to tackle the game themselves so that they can see what they are supposed to do.

PREPARATION TIME:

BUILDING A SPACESHIP: 10-15 min – This project is made for a group size of six.

LUNAR LAUNCH: 10 min – This project is made for a group size of three.

CREATING A UFO: 10 min

PROGRAM TIE IN:

If you live close to one, go on a field trip to a Science Center.

Opening

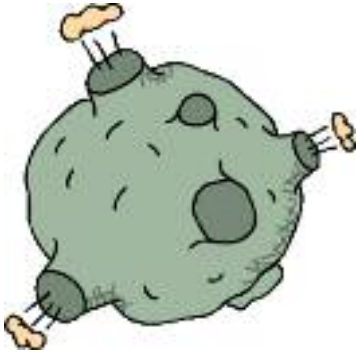
Enjoy your usual Opening then ask your Brownies what they know about astronauts. Ask them some astronaut questions such as who was the first Canadian to go into space? Or who was the first Canadian woman in space?

ANSWERS: Marc Garneau was the first Canadian in space. He flew on the Challenger on October 5, 1984. The first Canadian woman in space is Roberta Bondar and she went into space on January 22, 1992 aboard the Discovery. Some of the things astronauts do are: go into space, walk on the moon, and drive remote controlled vehicles on distant planets.



Gathering Activity

Meteorite Ball



The kids are broken into two groups, one for each side of the room. The rules are that they have to stay on their side of the room and fire inflated balls, meteorites, at one another. If they are struck by a meteorite they have to go to the side lines on the opposite side of the gym.

The ones that are hit are considered “out” and the ones that are left in the boundaries are “in.” Once they are out they can grab any ball that rolls into the sideline boundaries and try to hit the enemy team with it. If they succeed they are now considered in and run back to their own team.

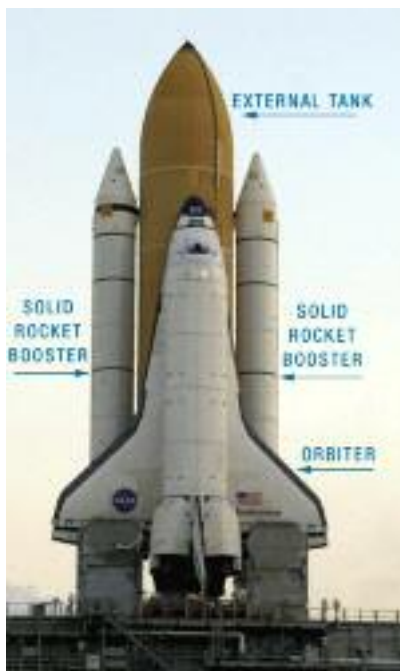
The goal of the game is to get all the opposite teams players on the sidelines so there is no one to shoot at.

Craft

“Building a Spaceship”

After sitting around during the Opening racking their brains about why you have boxes behind you it’s time to tell them that they are about to become astronauts of their own spaceships. But first they have to get their spaceships ready!

Break your kids into groups of six and assign each team one 1m x 1m box, one ½ m x ½ m box, and at least four boxes of various sizes. Give each group some markers to decorate their ship and some tape to hold the ship together.



Allow them ten to fifteen minutes to form and decorate their spaceship. Make sure that all cutting is done by a leader to prevent injury. Note that the time it takes to complete this project can vary depending on how much cutting a leader has to do.

Allow them a few minutes to play with their spaceships to burn off some excess energy before you move onto the discussion.

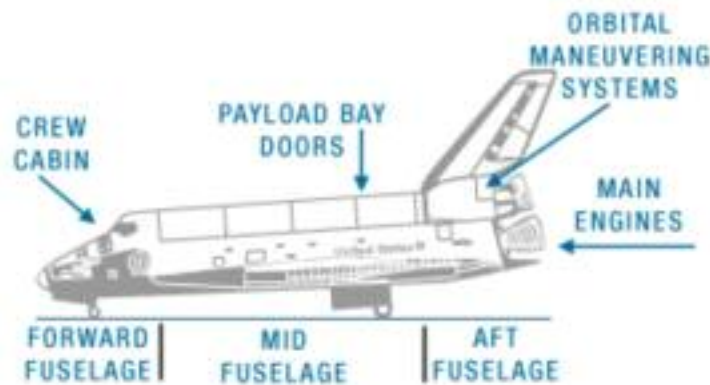
Discussion

“Space Shuttle Parts”

After they have tired themselves out a little bit playing with their spaceships get them to sit in or around their ships as you start your discussion.

Once you have their attention ask them if they can name the parts of a real space shuttle. The space shuttle is made of three major parts: a large External Tank that holds fuel for the main engines; two Solid Rocket Boosters which provide most of the Shuttle's lift during the first two minutes of flight, and the Orbiter which houses the crew.

The Orbiter can also be broken up into the wings, engine (which is on the back of the shuttle), the landing gear, and the crew cabin. For this discussion you will maintain the kids' attention longer if you show them labeled diagrams of the space shuttle (larger diagrams are available at the end of this document). Get them to point out any parts of their own spaceship that match that of the space shuttle.



Game

Lunar Launch

Now that your newly trained astronauts know how to build and fly their own spaceships it's time to train them in how to launch and land their ships.

Break them into teams of three and give each group three pieces of yarn that are 60 cm in length and an inflated balloon. Form the group into a triangle with each person holding one end of a string in each hand.

Toss the balloon up into the air and have the group work together to try and catch the balloon with the string. To do this they have to work together to form a triangle to cradle the balloon. This game can take as long as you want it too, but it's best to stop it in ten minutes so they don't get bored.

Discussion

“Being Weightless”

As one leader is setting up the craft area for “Creating a UFO” start this discussion by asking if your kids know what being weightless means.

When in space astronauts are weightless because there is no gravity. This means that they float about the spacecraft and have to hold onto handles in order to stay still. To get the astronauts ready for this experience NASA, the United States space program, has the astronauts get into a plane called the *Weightless Wonder*.

Once inside, the plane flies up very, very high then the pilot points the nose of the plane down and plummets to the Earth. As the plane falls the astronauts are able to become weightless for a few minutes and float about. Because the plane falls so fast some astronauts get sick that is why they have nicknamed the *Weightless Wonder* the *Vomit Comet*!

Craft

“Creating a UFO”



Your astronauts are now professionals in their field, but to make them experts they need to discover an Unidentified Flying Object or a UFO. For this craft let each person build their own UFO so they can take it home with them.

Give each person two paper plates and have them glue them together where one plate is right side up and the other is upside down so the plate rims are touching. This forms your UFO.

Next it is time to let them decorate it with markers or any other decorations you have on hand. This craft only takes ten minutes.

Closing

Congratulate the group on becoming fine astronauts!

Sing “*Moon Visit*” from *Sing A Song with Sparks and Brownies*.

Enjoy your regular Closing.

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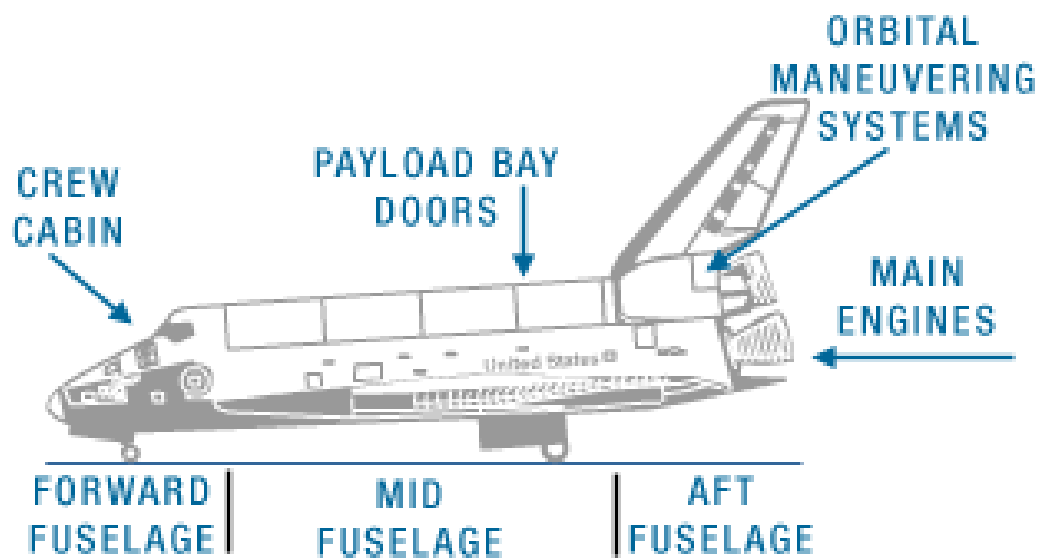
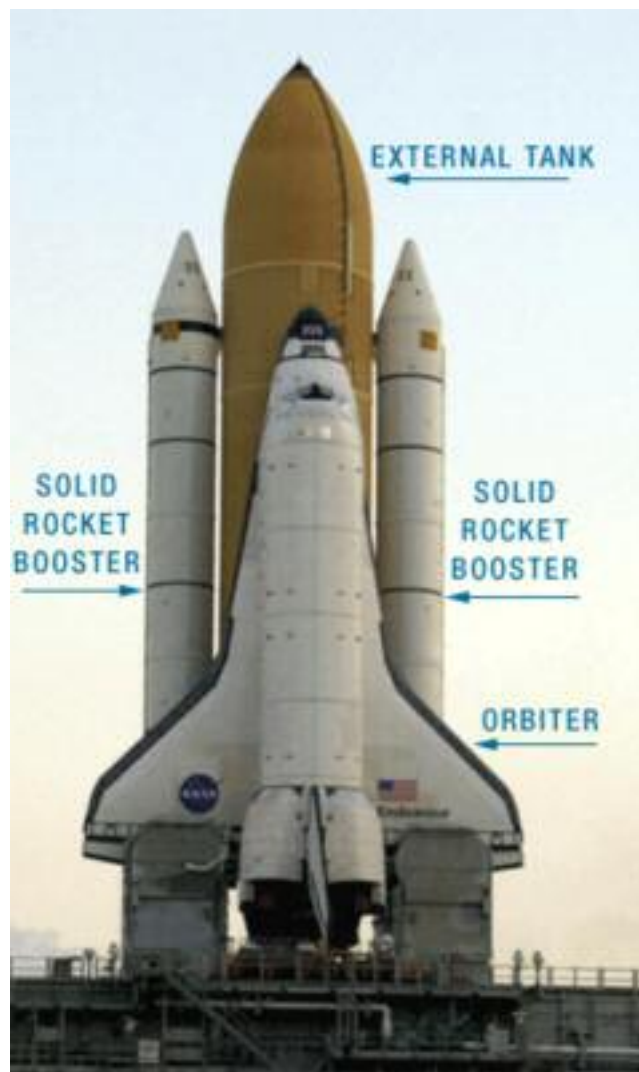


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