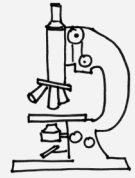




Wondernauts in Space

Wondering About the Present



Investigate Asteroids

Recommended for: Ages 6 and Up



JMM is an agency of The Associated



How do scientists study asteroids from Earth? Scientists can learn about asteroids using scientific instruments, like telescopes or probes. They take photos of asteroids using telescopes to see what they look like. They use probes to collect samples from asteroids to see what they are made of. No one instrument can provide all the information a scientist needs to learn about asteroids. Scientists must put all the clues from different instruments together. This activity, step into the shoes of scientists and conduct your own investigation on “asteroids” from around your home.

You will Need

- Box with a lid. The lid needs to have a hole in it that is large enough for a hand to fit through.
- An assortment of household objects that will fit into the box. Include things that have a variety of sizes and textures. Include some duplicates of the same things in different colors. Don't include anything sharp, dangerous or gooey.
- A friend or family member. This activity works best with a partner.

(1) Wonder

- What is an asteroid?
- Where do you think they come from?
- How do you think scientists learn about asteroids?
- What challenges do you think scientists might have trying to learn about something so far away?

(2) Read

What is an asteroid and what can we learn by studying asteroids? Read this [article from NASA](#) to find out.

(3) Imagine

When you go for a walk or are playing in your backyard and come across something new, maybe a rock or leaf, you can use all your senses to learn about that new thing. You can look at it with your eyes to see what color it is. You can feel it with your hands to see what texture it has. You can smell it with your nose to see what scent it has. You can lick it with your tongue to see what it tastes like. You can listen to it with your ears to see if it makes a noise.

Your senses (sight, touch, scent, taste, and hearing) are your tools that help you learn about the world around you.

Now imagine that you are a space scientist and the new thing that you have discovered is very far away in outer space. You need to use different tools, or space instruments, to help you learn about this new thing because you can't see, touch, or hear it. Sometimes, your instruments can tell you the answer easily. Other times, your instruments can only give tell you a piece of the puzzle, and you have to make your best guess.

(4) Try

1. Ask your partner to reach into the box and hold onto one item. Make sure to remind them not to peek.

Ask your partner:

- Is it big or small?
It is heavy or light?
- Is it hard or soft?
- Is it smooth or rough?
- What shape is it?
- What color is it?
- What do you think it smells like?
- Have you felt anything similar to this before?
- What do you think the object is?

2. Tell the partner to hold onto the item as you remove the lid.

How did our partner do? What were they able to answer correctly? What weren't they able to answer without looking at the object? If your partner had to guess, or maybe they guessed wrong, that's OK! This demonstrates the challenges that scientists face when they are learning about asteroids.

3. Make sure to take turns so that everyone has a chance to try!

JEWS IN SPACE
MEMBERS OF THE TRIBE IN ORBIT

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Want to complete this task towards collecting a Wondernauts badge? Share with the Wondernauts community about your experience? Tell us what your object was. What did you guess correctly? What couldn't you learn about your object without all your senses?