



LET'S GO TO THE MOON!

DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD



ABOUT THIS ACTIVITY:

Invite children to imagine a journey from Earth to the Moon and use household items (like cups, pillows, or blocks) to create a repeating step-by-step pattern they can follow outside under the night sky with a flashlight.

As they “travel” along their pattern, they notice how repeating steps help them reach a goal and how directions must stay in order to work. This helps your child understand what computational thinking concepts scientists needed to understand to land on the Moon.

STEM LEARNING AREAS:

Computational Thinking: Concepts involved in programming computers and coding.

Physical Science: Concepts related to objects or things, what they do, and how they move

- **Light:** Helps us see and when blocked, makes a shadow

Math: Concepts related to numbers, patterns, shapes, and space, and how to use them to solve problems

- **Patterns:** Things that repeat or change in a regular way, like colors, sounds, or movements happening again and again

WHAT DO I NEED?:

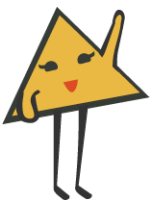
- Clear night sky
- A green or blue ball and a white or gray ball
- Household items
- Flashlight
- Board or tray

WHAT CAN I TALK ABOUT?:

- Patterns
- Sequence
- Moon
- Earth

WHAT CAN I ASK?:

- What comes next? Then?
- If you could build a rocket to the Moon out of anything, what would it be? Why?
- What steps are involved with building your rocket?





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ADAPTATIONS FOR DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD

Every child is different. Do what works best for encouraging your child's independent exploration during this suggested playtime activity. These are only suggested activity adaptations. Consider consulting your child's care team first.



Follow your child's lead and interests. Enthusiastically ask your child questions about what they are doing and what they like.



Answer your child's questions. If you do not know the answer, work together with your child to discover the answer.



Encourage your child to participate in the activity as much as possible. Praise your child's efforts and successes.

ENVIRONMENT

- If possible, limit background noise and distractions
- Use modified or flexible seating
- Place activity items on an anti-slip mat or in a container or tray
- Place objects within reach

MATERIALS

- Have child's assistive technology ready and available, including augmentative & alternative communication (AAC) device or power wheelchair
- Add additional materials, such as magnets or Velcro, to flashlight and objects to make it easier to grasp, lift, or turn
- Use stabilizing mats or Velcro for lining up contrasting materials in patterns

INSTRUCTION

- Use a variety of methods of communication (sign language, gestures) to meaningfully engage children
- Use pictures or icons to signal next steps (see following card for an example) and each step of the sequence
- Provide prompts to help the child create a patterned sequence and help the child imitate



Need visual cues?

Visit [STEMIE's Visual Cue Library](#) or check out STEMIE's tips for creating and using visual supports with [A Guide to Visual Supports](#).



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VISUAL CUES FOR DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD



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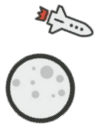
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ACTIVITY IDEAS FOR DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD

ADDITIONAL ACTIVITY IDEAS:

- Observe the phases of the moon each night and document
- Design and build a rocket
- Check out these great books about the Moon:
 - *Moon! Earth's Best Friend* by Stacy McAnulty
 - *The Moon Seems to Change* by Franklyn M. Branley
 - *Space: Planets, Moons, Stars, and More!* by Joe Rhatigan

