



# EXPLORING OBJECT MOVEMENT

EARLY INTERVENTION WITH YOUR YOUNG CHILD

Every child is different. Do what works best for encouraging your child's independent exploration of this suggested activity.



### ACTIVITY DESCRIPTION:

Bring a ball when you go to the park (or any object that can easily move). Show your child how to roll or kick the ball. As the ball is moving, ask your child if the ball is moving. When the ball stops moving, ask your child again if the ball is moving. If your child needs more support to understand what is moving or not, tell your child when objects are moving and not moving.

### STEM LEARNING AREA:

**Physical Science (concepts related to objects/things, what they do, and how they move):**

- Force & Motion (concepts related to objects moving, how they move, and how to make them move)
- Motion Identification (knowing that things move, how they move, and why they move.)

### STEM PROGRESSION STEP:

**Motion Recognizer:** Understands what is and is not moving

### WHAT CAN I SAY?:

- Ball, Move, Kick, Roll, Push, Stopped
- "The ball is moving."
- "The ball is not moving."
- "What else do you notice is moving?"
- "What else do you notice is not moving?"

### IDEAS TO SUPPORT MY CHILD'S GOAL:

Image credit: Pexels



# EXPLORING MOTION

EARLY INTERVENTION WITH YOUR YOUNG CHILD

Every child is different. Do what works best for encouraging your child's independent exploration of this suggested activity.



### ACTIVITY DESCRIPTION:

During playtime (with several objects), help bring your child's attention to how the different objects move and why. For example, if your child is playing with a ball, talk about how the ball rolls and that round things roll. Try testing out how other objects move!

### STEM LEARNING AREA:

**Physical Science (concepts related to objects/things, what they do, and how they move):**

- Force & Motion (concepts related to objects moving, how they move, and how to make them move)
- Motion Identification (knowing that things move, how they move, and why they move.)

### STEM PROGRESSION STEP:

**Motion Distinguisher:** Distinguishes different types of movement, with an intuitive understanding that this is related to the properties of an object (e.g., round things roll)

### WHAT CAN I SAY?:

- Move, Slide, Roll, Round, Flat
- "Do the ball and the block move the same way? I wonder what we could do to test it out?"
- "Which object will roll? Which object will slide?"

### IDEAS TO SUPPORT MY CHILD'S GOAL:

Image credit: Pexels





# IDENTIFYING MOTION

EARLY INTERVENTION WITH YOUR YOUNG CHILD

Every child is different. Do what works best for encouraging your child's independent exploration of this suggested activity.



### ACTIVITY DESCRIPTION:

Take a round and a flat object (like a ball and a wood chip) when you and your child go to the playground. Encourage your child to place the objects down the slide and ask them how the objects move

### STEM LEARNING AREA:

#### Physical Science (concepts related to objects/things, what they do, and how they move):

- Force & Motion (concepts related to objects moving, how they move, and how to make them move)
- Motion Identification (knowing that things move, how they move, and why they move.)

### STEM PROGRESSION STEP:

- **Motion Type Recognizer:** Understands that objects move differently but may identify the motion incorrectly
- **Motion Type Identifier:** Correctly identifies types of object movement when they see it.

### WHAT CAN I SAY?:

- Block, Move, Slide, Roll, Bounce, Bump, Round, Flat
- "It rolls/They roll! The ball rolled down the slide."
- "It slides/They slide! The block slid down the slide."
- "How did the ball move on the slide? How did you move on the slide?"
- "I wonder what will happen when we put the ball at the top of the slide?"

### IDEAS TO SUPPORT MY CHILD'S GOAL:

Image credit: Microsoft Stock



# EXPLORING HOW TO MAKE OBJECTS MOVE

EARLY INTERVENTION WITH YOUR YOUNG CHILD

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### ACTIVITY DESCRIPTION:

Model pushing a ball with a big push and a little push to show the child the difference in what happens. Let the child try giving the ball a big push and a little push and narrate as the child does this.

### STEM LEARNING AREA:

#### Physical Science (concepts related to objects/things, what they do, and how they move):

- Force & Motion (concepts related to objects moving, how they move, and how to make them move)
- Exertion of Force (doing something to make something else move)

### STEM PROGRESSION STEP:

- **Force Recognizer:** Understands how to exert more or less force to change how an object will move

### WHAT CAN I SAY?:

- Push, Throw, Move
- "Wow that ball went fast and far when you gave it a big push!"
- "What will happen if we give the ball a little push? Will it go as far? What if we give it a big push?"

### IDEAS TO SUPPORT MY CHILD'S GOAL:

Image credit: Pexels





# EXPLORING MOVEMENT ON THE SLIDE

EARLY INTERVENTION WITH YOUR YOUNG CHILD

Every child is different. Do what works best for encouraging your child's independent exploration of this suggested activity.



### ACTIVITY DESCRIPTION:

Take a ball when you go to the playground. Help your child explore putting the ball down a slide and talk about how the ball is moving down the slide. Next, help your child push the ball up the slide and help them notice what happens (the ball falls back down).

### STEM LEARNING AREA:

**Physical Science (concepts related to objects/things, what they do, and how they move):**

- Force & Motion (concepts related to objects moving, how they move, and how to make them move)
- Gravity (force that pulls things to each other; especially things to the ground)

### STEM PROGRESSION STEP:

**Gravity Recognizer:** Recognizes that gravity can be used to create motion or act as a force

### WHAT CAN I SAY?:

- Fall, Down, Move, Push
- "I wonder what will happen when we put the ball at the top of the slide? Do you think it will go down?"
- "I wonder what will happen if we push the ball at the bottom of the slide? Do you think it will go up and stay?"
- "Look! The ball rolls back down after we pushed it up!"

### IDEAS TO SUPPORT MY CHILD'S GOAL:

Image credit: Peter Dutton, Flickr



# REPEATING WHILE PLAYING

EARLY INTERVENTION WITH YOUR YOUNG CHILD

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### ACTIVITY DESCRIPTION:

Think about an action or activity your child can do over again several times (e.g., shaking a rattle, pushing a ball, batting at their play gym, clapping hands). Encourage your child to do the action or activity again.

### STEM LEARNING AREA:

**Computational Thinking (early concepts involved in programming computers and coding):** Repetition and Looping (doing an activity over and over again on purpose)

### STEM PROGRESSION STEP:

**Action Repeater:** Intentionally does something more than once and attends to repetition in other's actions

### WHAT CAN I SAY?:

- Again, Repeat
- "Again! You did it again and again!"
- "You did it! You made it happen again!"
- "Can you do it again?"
- "Oh, my goodness. What happened?"

### IDEAS TO SUPPORT MY CHILD'S GOAL:

Image credit: STEMIE





# FIXING THINGS

EARLY INTERVENTION WITH YOUR YOUNG CHILD

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## ACTIVITY DESCRIPTION:

Play a back-and-forth game with the child such as rolling a ball. Then add a "roadblock" (with a box, block, or another object that will stop the ball) so that the ball gets stuck. Help your child solve the problem and clear the way for the ball (or object you are rolling back and forth).

## STEM LEARNING AREA:

**Computational Thinking (early concepts involved in programming computers and coding):**

Debugging (figuring out what is wrong and fixing it)

## STEM PROGRESSION STEP:

**Simple Error Fixer:** Identifies a simple error in someone's actions and makes a change - reorganizing two steps into correct order when out of order or fixing an error with adult help

## WHAT CAN I SAY?:

- Problem, Fix, Solve
- "Go! Stop!"
- "Uh oh, I think the ball is stuck! What can we do?"
- "How can we make the ball roll again?"
- "How can we fix this problem?"
- "You did it! You solved it! You thought it through and solved the problem!"

## IDEAS TO SUPPORT MY CHILD'S GOAL:

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