HOUSTON MUSEUM
of NATURAL SCIENCE

Kindergarten–2nd Grade Discovery Hunt: Matter & Motion Exhibit

This guide helps young scientists explore what matter is and how things move using fun questions and hands-on activities. Chaperones can use this as a tool to guide students through the exhibit, sparking curiosity and learning about the world around us.

Before We Start: Let's Wonder!

Ask your group:

- **What do you think "matter" means?** (Everything that takes up space—like you, your backpack, and even the air!)
- **What do you think "motion" means?** (How things move—like rolling, sliding, or spinning.)
- **What do you hope to discover about matter and motion in this exhibit?**

Motion and Forces Area

Look for:
Exhibits that show different ways things can move—fast, slow, straight, zigzag, or in circles.

Talk About:

- **How do the objects in this part move?** (Rolling, sliding, spinning?)
- **Are they moving fast or slow?**
- **What makes these objects move?** (Is it pushing, pulling, or something else?)
- **Can you find objects moving in a straight line? Zigzag? Round and round?**

Activity – "Move Like Me!"
Pretend to move like one of the objects that you saw.

Periodic Table Floor Exploration

Look for:
A big floor with colorful squares—each one stands for a different kind of matter called an element.

Talk About:

- **What colors do you see on the floor?**
- **What happens when you step on different squares?**
- **How does the floor change when you walk across it?**

Activity – "Element Hopscotch"
Hop to different squares when your chaperone calls out a color or property!

Periodic Wall of Elements

Look for:
A bright wall with glowing elements—some shiny, some colorful, some small, some big.

Talk About:

- **How many different colors can you count?**
- **Can you find elements that look shiny?**
- **Which elements look different from the others?**

Activity – "I Spy Elements"
Play "I Spy" using the wall—for example, "I spy something blue and shiny" or "I spy something small and bright."

3D Immersive Theatre (Quarks & Quasars)

Look for:
A big room where you can see things that are very tiny (like quarks) and very big (like stars and planets).

Talk About:

- **What colors did you see in space?**
- **Did you see any stars or planets?**
- **How did the objects in space move?**
- **What was the biggest thing you saw? The smallest?**

Activity – "Space Explorer"
Pretend you're floating in space and moving like the things you saw in the show!

Alchemy Exhibit

Look for:
A pretend scientist's lab with bottles, tools, and books. Alchemists were early scientists who tried to make new things.

Talk About:

- **What strange objects do you see in the lab?**
- **What do you think the alchemist is trying to make?**

Activity – "Alchemist's Experiment"
Pretend you're an alchemist! Describe what experiment you would try to make something new.

Wrap-Up: Share What You Learned!

Ask:

- **What was your favorite thing you saw today?**
- **What is one new word you learned about matter or motion?**
- **What is one thing you saw that moved in an interesting way?**

- **What would you like to learn more about?**

Activity – "Draw or Act It Out!"
When you get back to class, draw or act out your favorite part of the exhibit.

TEKS Alignment

Kindergarten

- **K.1.A**: Ask questions and define problems based on observations or information from text, phenomena, models, or investigations.
- **K.1.B**: Use scientific practices to plan and conduct simple descriptive investigations.
- **K.6.A**: Classify matter by observable physical properties, including color, texture, and material.
- **K.7.A**: Describe and predict how magnets interact with materials to push or pull.
- **K.9.A**: Identify patterns of day and night and observable sky characteristics.

1st Grade

- **1.1.B**: Conduct descriptive investigations to test cause-and-effect relationships.
- **1.6.A**: Classify matter by flexibility, temperature, and state (solid/liquid).
- **1.7.A**: Explain how pushes and pulls change an object's motion.
- **1.7.B**: Plan investigations to predict motion changes from forces.

2nd Grade

- **2.1.D**: Use tools such as hand lenses, magnets, and thermometers.
- **2.7.B**: Investigate how the strength of a push or pull changes the motion of an object.
- **2.8.C**: Design devices using sound to solve problems.

- **2.9.B**: Use tools to observe sky objects such as telescopes.