Dear Educator or Parent,

Welcome to the Imagination Station’s early education resource! With the assistance of area K-12 educators, the Imagination Station has created learning guides to allow you to structure a visit to the Imagination Station that aligns directly to the concepts you are teaching your young scientists.

This guide allows students to explore language arts, math and science in our special Little KIDSPACE early learning area. Students will explore in the Construction Zone, Grocery Store, Hospital and Tree House.

**Your Early Childhood Exhibit Guide contains:**
- Introduction- suggestions for using the guide with key concepts included
- State Standards Alignment for both Ohio and Michigan
- Activity Pages- Tips for facilitating exhibit explorations with children, including guiding questions for each activity
- Pre and Post-Visit Activity to do back in the classroom

**How to Use This Guide:**
- Review the guide.
- Customize the guide for your needs. You can complete the entire guide or just a particular component, depending on your field trip objectives.
- Explore the area with your group and encourage questions. (You don’t need to know the answers!)
- If you have questions, ask an Imagination Station team member for help. We are glad to show you how an exhibit works.
- Review the guide and your expectations with students and prepare for a day of fun science learning at the Imagination Station.
Ohio Academic Content Standards

Pre-visit Activity
Early Learning:
English Language Arts:
Benchmark: Word recognition
Indicators: Identify own name in print

Construction Zone
Early Learning:
Mathematics:
Benchmark: Spatial sense; patterns; gradation; measurement
Indicators: Match identical 2 and 3 dimensional objects; sort and classify 2 and 3 dimensional objects; identify and name simple shapes; arrange objects in order, longest to shortest/shortest to longest; use non-standard units of measure.

Grocery Store
Early Learning:
Mathematics:
Benchmark: Number and spatial sense
Indicators: Count to 10; touch objects and say numbers; demonstrate one-to-one correspondence when counting objects; matching/sorting objects.
Social Studies:
Benchmark: Cultures, diversity
Indicators: Demonstrate awareness of different groups through exploration of foods, family groups.

Hospital
Early Learning:
Mathematics:
Benchmark: Number and sense
Indicators: Counting to ten; touch and say number; demonstrate one-to-one correspondence when counting objects; sort; match.
Social Studies:
Benchmark: Jobs and occupations; explore the family as a social unit
Indicators: Role play different jobs in the hospital; practice caring for baby/nurturing family members.

Scientific Inquiry:
Benchmark: Design and conduct a simple investigation to explore a question.
Indicators: Use one or more of the senses to observe and learn about objects, organisms and phenomena for a purpose.

Tree House
Early Learning:
Earth and Space Sciences:
Benchmark: Processes that shape the Earth
Indicators: Observe and describe day-to-day changes in the weather; observe and describe seasonal changes in weather.

Michigan Curriculum Framework

Pre-visit Activity
Early Childhood:
Creative Arts:
1. Early Learning Expectations: Children show how they feel, what they think and what they are learning through experiences in the visual arts. (HSCOF-CD 5.2.1, 5.2.2)

Language Arts:
2. Early Learning Expectations: Children begin to develop writing skills to communicate and express themselves effectively for a variety of purposes.
Construction Zone
Michigan Content Standards: Mathematics
Strand 3: Measurement
Early Childhood:
Mathematics:
1. Early Learning Expectation: Children begin to develop processes and strategies for solving mathematical problems. (HSCOF-M 3.1.1, 3.1.2)
2. Early Learning Expectation: Children begin to develop skills of comparing and classifying objects, relationships and events in their environment. (HSCOFM 3.2.4, 3.2.1, 3.3.2, 3.3.3)
7. Early Learning Expectation: Children begin to develop an understanding of numbers and explore simple mathematical processes (operations) using concrete materials. (HSCOF-M 3.1.3, 3.1.4, 3.1.5, 3.1.6) (GLCE-N.ME.00.01-10)

Language Arts:
1. Early Learning Expectation: Children begin to understand written language read to them from a variety of meaningful materials, use reading-like behaviors, and make progress towards becoming conventional readers.
A. In comprehension strategies: (HSCOF-LD 1.1.3, L2.2.1, 2.2.2)(GLCE-R.LS.00.11.12; R.NT.00.01-.05; R.IT.00.01-.04; R.CM.01-.06; RP.00.01-.03)
B. In print and alphabetical knowledge: (HSCOF-L 2.1.3, 2.1.5, 2.3.5, 2.5.1, 2.5.2, 2.5.3, 2.5.4)(GLCE-R.WS.00.03-.09; R.FL.00.01)

Grocery Store
Michigan Content Standards: Mathematics
Strand 3: Measurement
Early Childhood:
Physical Development and Health:
7. Early Learning Expectation: Children become aware and begin to develop an understanding of nutritional habits that contribute to good health.

Mathematics:
7. Early Learning Expectation: Children begin to develop an understanding of numbers and explore simple mathematical processes (operations) using concrete materials. (HSCOF-M 3.1.3, 3.1.4, 3.1.5, 3.1.6) (GLCE-N.ME.00.01-10)

Science
2. Early Learning Expectation: Children begin to recognize that many different influences shape people’s thinking and behavior. (HSCOF-SS 6.5.2)

Social Studies
1. Early Learning Expectation: Children begin to understand and interpret their relationship and place within their own environment. (HSCOF-SS 6.5.4)

Hospital
Early Childhood:
Physical Development and Health:
5. Early Learning Expectations: Children begin having knowledge about and make age-appropriate healthy choices in their daily lives. (HSCOF-PDH 8.3.3, 8.3.4)

Mathematics:
7. Early Learning Expectations: Children begin to develop an understanding of numbers and explore simple mathematical processes (operations) using concrete materials. (HSCOF-M 3.1.3, 3.1.4, 3.1.5, 3.1.6) (GLCE-N.ME.00.01-10)

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Tree House
Early Childhood:
Science:
2. Early Learning Expectation: Children beginning to show awareness of scientific knowledge and relate to living and non-living things. (HSCOF-4.2.1, 4.2.2)
3. Early Learning Expectation: Children show a beginning awareness of scientific knowledge related to the earth.

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Coming to Imagination Station

Materials:
- Paper or self-adhesive name tags
- Markers
- Crayons
- Yarn, Optional
- Paper punch, optional

Procedure:
1. Write each student’s name on a paper or self-adhesive name tag. (This will be their name tag the day they come to the Imagination Station.)
2. Lay the cards down and invite the children, one at a time, to find their own name.
3. Have the children decorate these, as desired.
4. If using paper, the teacher will need to punch holes in the top corners and attach yarn to the necklace.
5. Talk about the Imagination Station. What is a science center? What will you do at the science center when you visit?

Guiding Questions:
- What is the first letter of your name?
- What sound does that letter make?
- What are some other words that start or end with that sound?
- Has anyone ever been to the Imagination Station before? What things did you like to do when you visited?
Back in the Classroom: Construction Zone

What’s my Rule?

Discuss with children the experiences they had with the blocks. Ask them to recall what they built with the blocks and the different kinds of blocks they used.

Materials:
Blocks of various sizes

Procedure:
1. Have children identify a group of blocks that follow a certain rule.
   Examples:
   - My blocks all have straight edges on their sides.
   - My blocks all have three sides.
   - My blocks all have sides that are the same length.
2. Encourage students to use numbers, colors and shapes to group their blocks.
3. Gather in a group and see if students can guess how their classmates grouped their blocks.
4. Have students try to find more blocks that follow their rule.
5. Have students repeat this activity with a new and different rule.

Extension:
Read the following books:
- *The Tangram Book* by Jerry Slocum
- *Story Puzzles: Tales of the Tangram Tradition* by Valerie Marsh
Back in the Classroom: Grocery Store
Class Pizza

Learn about portions and servings.

Materials:
Assorted colored paper
Scissors
Glue/Paste
Crayons/markers
Large circular cardboard (to be the pizza)

Procedure:
1. Brainstorm a list of toppings for a pizza.
2. Divide the class into small groups. Ask each group to make a ‘topping’ for the pizza using the materials provided (pepperoni, mushrooms, green peppers, etc.)
3. Arrange and glue the toppings on the pizza.
4. Cut the pizza into four portions. Give one piece to four different children. Count aloud with the children the number of portions: 1, 2, 3, 4. Explain that this one pizza provides 4 portions.
5. Now take those same pieces and cut each in half. Count aloud with the children how many portions you have after you cut the pizza a second time. Explain that now this one pizza provides eight portions but that the new pieces are smaller.
6. Cut the pizza slices in half again and pass them out. Again, count aloud how many portions there are. Sixteen. Have the children observe that these pieces are even smaller.
7. Explain that as the number of servings increases, the individual portion decreases- the more people who eat the pizza, the smaller the piece each person will get! If we keep cutting the pizza so everyone can have a piece, the pieces will be so small, children may only get one bite!

Extension:
Read aloud: Little Nino’s Pizzeria by Karen Barbour
Discuss how Nino’s family worked as a team and how working as a team makes the task easier and faster.
Back in the Classroom: Hospital

On the Job

Materials:
Empty toilet paper rolls

Procedure:
1. Discuss the tools doctors and nurses use in their job to check a person’s health. Have students recall some of the equipment they saw in the Hospital at the Imagination Station.
2. Make your own stethoscope in class using toilet paper rolls.
3. Have students take turns listening to one another’s resting heartbeat through the roll, then have the children do some quick exercise, like jumping up and down for 30 seconds, and listen again to hear if the heartbeat is louder and faster.
4. Ask the children:
   a. Which of the five senses do doctor’s use to check your heartbeat?
   b. Are good listening habits important for a doctor?
   c. What other jobs require good listening skills or habits?

Extension:
You will need: Fox on the Job by James Marshall
1. Have children recall the Hospital at the Imagination Station. Ask them what kinds of jobs hospital workers have to do. Help them recall the ambulance, the admitting desk and the nursery area.
2. Read Fox on the Job aloud. In the book, Fox tries to earn money for a new bicycle in several different jobs. Talk about the different jobs that Fox took to earn money.
3. Have children think of (or invent) careers that would be fun to have, such as ice cream taster, video game designer, toy inventor or dog walker.
4. Give each child a handout. Help the children fill out the job description, then draw a picture of what they would like to do.
My name is ________________________________

I am a ________________________________

At my job, I ________________________________

                                 ________________________________
Back in the Classroom: Tree House

What’s the Weather?

Materials:
Imagination Station’s Weather Coloring Page
Crayons

Procedure:
1. Have children color and discuss the Weather Coloring Page.
2. Ask the children to say one thing they like to do in each season.
3. Discuss the need to wear different clothes for rainy/hot/cold/windy weather.
4. Make a chart on the board with the titles: Rainy, Hot, Cold, Windy, Snowy and list or stick pictures up on the board of clothing that children state they would wear in that type of weather.
5. Discuss how animals change ‘what they wear’ in different seasons and why? (examples: dog shedding, rabbits turning white in winter)
6. Talk about how animals that can’t change their clothes cope with different weather conditions. Examples: bears hibernate, fish swim to deeper water, birds fly south.

Extension:
Read the following books:
• Jesse Bear, What Will You Wear? by Nancy White Carlstrom
• The Living Rain Forest: An Animal Alphabet by Paul Kratter
Construction Zone

Explore building and measurement.

Materials:
Wooden blocks
Large, colored, soft blocks
Pencil (for chaperone)

Procedure:
1. Ask the children to tell you something about the blocks (their properties/characteristics).
   Ask the children:
   • How are the blocks the same or different?
   • Can you find some blocks that match? Can you find a smaller or larger block?
   • Which blocks look like a square? A rectangle? A cylinder?
2. Grab blocks of different sizes and have the students arrange them from smallest to largest.
3. Hand each child a block and have them find an identical block.
4. Play a game with the blocks. “I spy a block that is ________” and have the children locate it.
5. Invite the children to use the blocks as “measuring” tools. Have them line up the blocks and then count how many blocks it is to the Tree House. Then count how many blocks it is from the Tree House to the Hospital. Have the children build their own “train” of blocks and count them.
6. Have children explore how tall they are in blocks.
7. Ask the children:
   • How many blocks can you stack up before they fall down?
   • Have children build a tower of blocks starting with the largest blocks at the bottom. Then have students try to build a tower with the small blocks at the bottom. Which blocks make a stronger tower?

Write down the children’s comments and questions.
Grocery Store
Explore food and customs.

Materials:
Food items
Pencil (for chaperone)

Procedure:
1. Invite the children to gather foods in their shopping cart to ‘prepare a meal’.
2. Prompt the children to sort the foods according to:
   • Number
   • Size
   • Breakfast, Lunch or Dinner
   • Healthy or Unhealthy
   • Vegetable, Meat, Fruit or Grain

Guiding Questions:
• Where does this food come from? A plant or an animal?
• How are the different foods prepared that are in your cart?
• What is a tradition? Explain that a tradition is something we enjoy doing again and again, like eating turkey at Thanksgiving. Are there foods in the grocery that remind you of traditions in your home?
• What other holidays involve a special meal?

Write down the children’s comments and questions.
Hospital

Explore hospitals and their equipment.

Materials:
Dolls
Hospital scrubs
Blankets
Pencil (for chaperone)

Procedure:
Task 1
1. Invite the children to dress and care for their babies.
2. Have the children observe the equipment and areas that the hospital has to help people take care of the children.
   • What are some hospital jobs?
   • Do these workers wear special clothes? Do they use special equipment or tools?

Task 2
1. Count the babies. Match one blanket for each baby. How many blankets do you have?
   How many babies do you have?
2. Sort scrubs from blankets and count them. Are there more blankets or scrubs?

Write down the children’s comments and questions.
Tree House

Learn about habitats, weather and seasons

Materials:
Pencil (for chaperone)

Procedure:
1. Invite the children to explore the Tree House and pretend that they are animals.
2. Imaginative play is a great way for children to better understand the world around them. Encourage the children to make sounds like the animals they are pretending to be, move like the animals, eat food like the animals, etc.
3. Ask the children:
   • What animals live above the ground (in the branches of the trees)?
   • What animals live below the ground (in dens/burrows/tunnels)?
   • How are these animals the same? How are they different?
   • By looking at the leaves, what season do you think it is in KIDSPACE?
4. Look out the windows. Ask the children:
   • What is the weather like outside today?
   • What season is it in Toledo today?

Write down the children’s comments and questions.