

Kids at Work

Kids at Work is a construction site that includes buildings and other construction projects. Build your own Duplo constructions, use shovels and a crane to move rocks, and see how simple shapes work together to make more complex structures.

In this exhibit, children are encouraged to interact with different types of building materials within a construction site setting. Throughout the construction site are resemblances of buildings within the Cincinnati area. From the backdrop of the skyline to the brio building structure modeled after downtown, these buildings provide a creative mood for a building environment.

The interactive activities in Kids at Work consist of operating a crane and building structures with a variety of materials. Through the children's use of several different materials, the variety of invention possibilities is limitless.

CRANE AREA

WORK THE CRANE:

- Move the crane
- Dump the rocks after someone has filled the bucket

WORK WITH THE ROCKS:

- Wear a safety vest
- Load the wheelbarrows and bucket with rocks.
- Use shovels

DRIVE THE DUMP TRUCK

IMAGINATION PLAYGROUND

- Use the large blue foam pieces to build anything!
- Encourage children to build with the blocks and describe what they are building.

BUILDING AREAS

- When the child is finished with the structure, ask him/her to describe the building. If the building is unsteady or falls, ask the child how it could be redesigned to be sturdier.

HOUSE:

- Use the foam squares to fill in the walls like insulation or cover the floor like carpeting.
- Not all the spaces are the same so there are a variety of sizes.

DUPLO BRIDGE

- Use Duplo bricks to create your own structures.
- Can you build a bridge like the one you see?

UNIT BLOCKS

- Use different building elements to create a structure.
 - Trusses, buttress, arches, foundations, posts, lintel, flying buttress.
- Can you make it wider or taller?

SAFETY TIPS:

WALK

- This is a high-energy exhibit, please remind students to walk at all times.

MEETING SPOT

- Since it is often difficult to stay directly with your group, provide a meeting spot for students and do visual checks periodically. Find a staff member to help you locate lost students!

FIRST AIDE

- If you need first aid during your visit, please see a staff member. Staff can always be found at the entrance of the museum.

RULES OF THE EXHIBIT

DON'T THROW OBJECTS

- Encourage students to shovel the rocks, not to throw them.

TAKE TURNS

- Children should take turns operating the crane, shoveling the rocks, moving the wheelbarrows and driving the dump truck.

STAY GROUNDED

- Feet should stay on the floor at all times in this exhibit area.
- Please inform students not to build structures taller than themselves.

STATE CONTENT STANDARDS (Ohio)

EARLY LEARNING AND DEVELOPMENT

- Social and Emotional Development
 - Peer Interactions and Relationships – Cooperative Play
 - Peer Interactions and Relationships – Socially Competent Behavior
- Physical Well Being and Motor Development
 - Small Muscle: Touch, Grasp, Reach and Manipulate
 - Sensory Motor
- Approaches Toward Learning
 - Initiative and Curiosity – Explore and Experiment
 - Initiative and Curiosity – Self Direction & Questioning
 - Planning, Action and Reflection – Planning & Action
 - Planning, Action and Reflection - Reflection
 - Innovation and Invention
- Cognition and General Knowledge
 - Reasoning and Problem-Solving
 - Number Sense and Counting
 - Group and Categorize
 - Patterning
 - Describe and Compare Measurable Attributes
 - Spatial Relationships
 - Identify and Describe Shapes
 - Analyze, Compare and Create Shapes
 - Inquiry
 - Cause and Effect
 - Explorations of Energy -
- Language and Literacy
 - Receptive Language and Comprehension
 - Expressive Language

LANGUAGE ARTS

See National Common Core

MATH

See National Common Core

SCIENCE

K-PS-1 Objects and materials can be sorted and described by their properties.

1-PS-2 Objects can be moved in a variety of ways, such as straight, zigzag, circular and back and forth

2-PS-1 Forces change the motion of an object.

5-PS-1 The amount of change in movement of an object is based on the mass* of the object and the amount of force exerted.

SOCIAL STUDIES

K-GV-9 Individuals have shared responsibilities toward the achievement of common goals in homes, schools and communities.

2-E-14 Resources can be used in various ways.

2-E-15 Most people around the world work in jobs in which they produce specific goods and services.

NATIONAL CONTENT STANDARDS

LANGUAGE ARTS – Common Core

RL-K-1 With prompting and support, ask and answer questions about key details in a text

RL-K-4 Ask and answer questions about unknown words in a text.

RL-1-1 Ask and answer questions about key details in a text.

RL-2-1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text

RL-2-7 Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot

RI-K-1 With prompting and support, ask and answer questions about key details in a text

RI-K-4 With prompting and support, ask and answer questions about unknown words in a text.

RI-1-1 Ask and answer questions about key details in a text.

RI-1-4 Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.

RI-1-7 Use the illustrations and details in a text to describe its key ideas.

RI-2-1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.

SL-K-1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

- a.** Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).
- b.** Continue a conversation through multiple exchanges

SL-K-2 Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.

SL-K-3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

SL-1-1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.

- a.** Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).
- b.** Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
- c.** Ask questions to clear up any confusion about the topics and texts under discussion.

SL-1-2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

SL-1-3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

SL-2-1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.

- a.** Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- b.** Build on others' talk in conversations by linking their comments to the remarks of others.
- c.** Ask for clarification and further explanation as needed about the topics and texts under discussion.

SL-2-2 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

SL-2-3 Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

SL-3-1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.

b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).

c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.

SL-3-2 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

SL-3-3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

SL-4-1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.

b. Follow agreed-upon rules for discussions and carry out assigned roles.

c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.

SL-5-1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

b. Follow agreed-upon rules for discussions and carry out assigned roles.

c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.

SL-6-1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.

b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.

SL-6-2 Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.

MATH – Common Core

K-CC-1 Count to 100 by ones and by tens.

K-CC-2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

K-MD-1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

K-MD-2 Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.

K-MD-3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

K-G-1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.

K-G-2 Correctly name shapes regardless of their orientations or overall size.

K-G-3 Identify shapes as two-dimensional (lying in a plane, “flat”) or three dimensional (“solid”).

K-G-4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).

K-G-5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

K-G-6 Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”

1-G-2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

SCIENCE – Next Generation

K-PS2-1 Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.

K-PS2-2 Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.

2-PS1-3 Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.

3-PS2-1 Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.

3-PS2-2 Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

SOCIAL STUDIES – National Standards

NONE