

H2OH Exhibit

DESCRIPTION:

The H2Oh! exhibit is designed to let children learn about the properties of water through fun, interactive play. It features four stations where children and their families can experiment with flowing, squirting, splashing, spraying, sinking and floating, and a fishing pond where we proudly support catch and release! Aprons and towels are available for this interactive and wet STEM learning experience.

KEY WORDS:

- Gravity
- Force
- Magnetic forces
- Engineering
- Safety

LEARNING ACTIVITIES:

- Using the fishing rod, challenge your preschooler to **CAPTURE** the fish in the pond. Can your preschooler catch on of each color as you call each color out? (Language + Physical Development + Self-Regulation)
- **CHOOSE** two objects from the large pool and send them down the river. Ask your preschooler to **PREDICT** which one will reach the end first and why. After the race is over, discuss together whether their prediction was correct. (Math + Social Emotional)
- **PRETEND** you both are co-captains navigating stormy waters. Can you make it all the way around the pool without bumping into other objects? (Performing Art + Physical Development + Social Emotional)

DRDP

APPROACHES TO LEARNING:

- Curiosity/Initiative
- Self-Control
- Engagement / Persistence
- Shared use of Space / Mats

COGNITION, INCLUDING MATH AND SCIENCE:

- Spatial Relationships
- Cause & Effect
- Inquiry Obs. Investigation

PHYSICAL DEVELOPMENT AND HEALTH, WELLNESS:

- Perception Motor/Movement
- Gross Locomotion/Movement
- Gross Motor Manipulative
- Fine Motor Manipulative

VISUAL AND PERFORMING ARTS:

- Drama

KANSAS EARLY LEARNING STANDARDS

SCIENCE STANDARDS:

- S.p.4.10: Demonstrates ways in which the environment provides natural resources that are needed by people (e.g., wood for lumber to build a shelter, water for drinking).

COMMUNICATIONS AND LITERACY STANDARDS:

- CL.SL.p3.3: Uses some basic qualitative (e.g. wet/dry, hot/cold) and quantitative (e.g. more/less, empty/full) concepts to describe familiar people, places, things and events.
- CL.SL.p4.3: Uses some basic spatial (e.g., front/back, top/bottom) and temporal (e.g., first/last, before/after) concepts to describe familiar people, places, things and events.
- CL.LS.p4.1: Demonstrates an emerging command of the conventions of standard English grammar and usage when writing or speaking.

MATH STANDARDS:

- M.CC.P3.1 Know number names and count sequence
- M.CC.P4.4 Count to tell the number of objects
- M.CC.K.1 Compare numbers
- M.OA.K.1 Understand addition as putting together and adding to and understand subtraction as taking apart and taking from
- M.MD.K.1 Describe and compare measurable attributes
- M.MD.K.3 Classify objects and count the number of objects in each category

MISSOURI EARLY LEARNING STANDARDS

LITERACY STANDARDS:

Symbolic Development:

- Represents feelings and ideas in a variety of ways

Speaking/Expressive Language

- Uses language to communicate

Listening/Receptive Language

- Listens for different purposes

MATH STANDARDS:

Number and Operations:

- Uses number to show quantity
- Uses language to represent number objects
- Solves problems using numbers
- Uses numerical representation

Geometry and Spatial Sense:

- Investigates positions and locations
- Explores shapes in the environment

Patterns and Relationships:

- Makes comparisons
- Uses measurements

SCIENCE STANDARDS:

Physical Science:

- Explores physical properties of objects and materials
- Investigates properties of objects and materials
- Solves problems involving physical properties of objects and materials
- Represents observations of the physical world in a variety of ways

K-2 KANSAS STATE STANDARDS

SPEAKING AND LISTENING STANDARDS:

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

SL.K.1a: Follow agreed-upon rules for discussions (e.g. listening to others and taking turns speaking about the topics and texts under discussion).

SL.K.1b: Continue a conversation through multiple exchanges.

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.

SL.1.1a: 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).

SL.1.1b: Build on others' talk in conversations by responding to the comments of others through multiple exchanges.

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.

SL.2.1a: 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).

SL.2.1b: Build on others talk in conversations by linking their comments to the remarks of others.

SL.2.1c: Ask for clarification and further explanation as needed about the topics and texts under discussion.

PRESENTATION OF KNOWLEDGE AND IDEAS:

SL.K.4: Describe familiar people, places, things, and events and, with prompting and support, provide additional

SL.K.6: Speak audibly and express thoughts, feelings, and ideas clearly.

SL.1.4: Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.

MATHEMATIC STANDARDS:

K.G.1: Describes 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.

COUNTING AND CARDINALITY STANDARDS:

K.CC.2. Count forward beginning from a given number with the known sequence.

K.CC.4. Understand the relationship between number and quantity; connect counting to cardinality.

K.CC.5. Count to answer "how many?" questions about as many as 20 things arranged in configurations.

K.CC.6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.

NEXT GENERATION SCIENCE STANDARDS

PS1.A: STRUCTURE AND PROPERTIES OF MATTER:

Different kinds of matter exist and many of them can be either solid or liquid, depending on the temperature. Matter can be described and classified by its observable properties. (2-PS1-1)

ESS2.C: THE ROLE OF WATER IN EARTH'S SURFACE PROCESSES:

Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS2-3)

ESS3.C: HUMAN IMPACTS ON EARTH SYSTEMS:

Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (K-ESS3-3)

ETS1.A: DEFINING AND DELIMITING ENGINEERING PROBLEMS:

A situation that people want to change or create can be approached as a problem to be solved through engineering. (K-2-ETS1-1)

Asking questions, making observations, and gathering information are helpful in thinking about problems. (K-2-ETS1-2)