Water

Rainbows (What's Included!)

- Introduction to the Unit of Investigation
- Materials Needed for Activities
- Vocabulary Words
- Songs to Sing
- Books to Read
- Expanded Play & Experiential Learning
- 12 Activities (Including Materials Needed, Directions to Follow, and Targeted Learning Objectives)

Introduction: Water

Water play offers numerous benefits for young children, fostering their development through sensory-rich, hands-on experiences. It encourages exploration, fine and gross motor skills, and cognitive growth. When children engage with a water sensory table, they experiment with concepts like volume, buoyancy, and cause and effect, enhancing their problem-solving and critical thinking abilities. For example, pouring water from one container to another helps them understand measurements and quantities, while floating & sinking objects introduce them to basic physics concepts.

Embracing water concepts in everyday experiences—such as bath time, washing hands, or observing raindrops—provides continuous opportunities for children to engage with water in meaningful ways. These daily interactions promote language development as children describe what they see and feel, and they also encourage social skills when they play and cooperate with peers during water activities. By integrating water play into everyday routines, we can support holistic development, making learning a natural and enjoyable part of children's lives.

When administering activities, it's important to re-offer the same activities several times over. This allows children the opportunity to make deep connections, comprehend uses and properties, while contributing to mastery and memory recall. And keep in mind that learning is not confined to a specific time, place, or activity. It's an ongoing journey where connections are woven through daily interactions and engagement with the people, places, and materials that surround us.

Materials

Our suggested list of materials are items that will supplement the activities and experiences in your packet.

- Large, shallow bin / water table
- Materials to support water play (cups, bowls, measuring cups, spoons)
- Pack of waterbeads
- Pack of sponges
- Cups, measuring cups, or stacking cups
- Materials from around the room for sinking/floating experiment
- Ice tray
- Water colors
- Watercolor paper
- Paintbrushes
- Popsicle sticks
- Clear, empty spray bottle/s
- Aquatic animal toys
- Pipe-cleaners

Vocabulary Words

New & relative vocabulary words to incorporate in everyday experiences: In addition to incorporating the vocabulary words provided below, try to speak as you go! Talking to children as you go is one of the most powerful ways to expand upon receptive and expressive language development. The more language children are exposed to (when used in meaningful and relative context) the greater it contributes to language and future literacy skills.

- Water
- Wet
- Dry
- Splash
- Drip
- Wave
- Bubble
- Rain
- Ocean
- Sea
- Lake
- River
- Pond
- Stream
- Pool
- Bath
- Boat
- Fish
- Frog
- Duck
- Wet
- Ice
- Snow
- Puddle
- Cloud
- Swim
- Float
- Sink
- Squirt
- Hose
- Shower
- Waterfall
- Tide
- Raindrop
- Umbrella
- Lifejacket
- Paddle
- Sail
- Shore
- Whirlpool

Songs to Sing

Singing with children is a multifaceted tool for development, enhancing language skills through exposure to varied vocabulary and rhythms. The rhythmic and melodic nature aids memory, making learning engaging. Beyond cognitive benefits, singing promotes emotional expression, fostering a holistic growth experience.

Slippery Fish
A slippery fish, a slippery fish,
Swimming in the wa-ter.
A slippery fish, a slippery fish,
Gulp! Gulp! Gulp!
Oh, no! He was swallowed by an….

Octopus, an octopus,
Squiggling in the wa-ter.
An octopus, an octopus,
Gulp! Gulp! Gulp!
Oh no! He was swallowed by a…

Tuna fish, a tuna fish,
Flashing in the wa-ter.
A tuna fish, a tuna fish,
Gulp! Gulp! Gulp!
Oh no! He was swallowed by a…

A great big shark, a great big shark,
Lurking in the wa-ter.
A great big shark, a great big shark,
Gulp! Gulp! Gulp!
Oh no! He was swallowed by a…

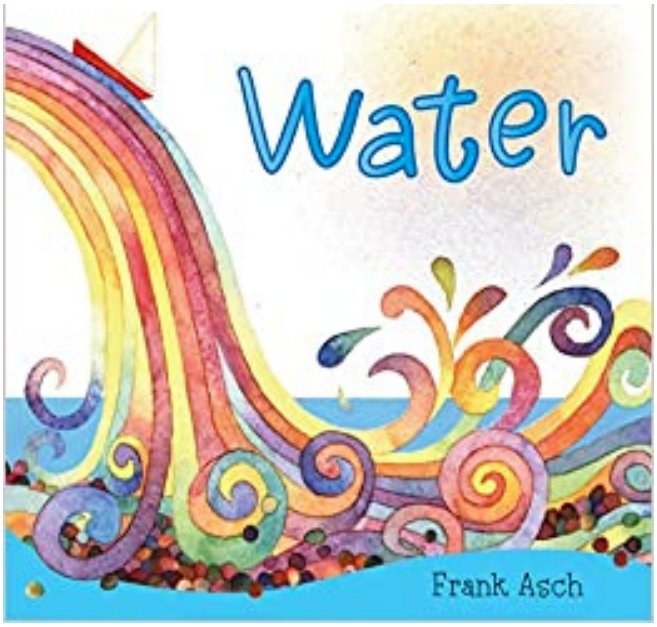
Humongous whale, humongous whale,
Spouting in the wa-ter.
A humongous whale, humongous whale - BURP!

Row Row Row Your Boat
Row, row, row your boat,
Gently down the stream,
Merrily, merrily, merrily, merrily,
Life is but a dream.

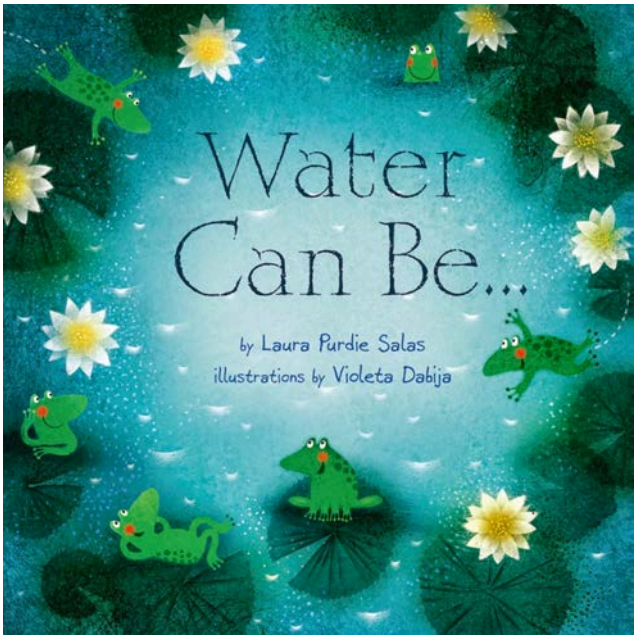
Row, row, row your boat,
Gently down the stream,
If you see a crocodile,
Don't forget to scream!

Books to Read

We select two books to support your unit of investigation - it's important to go slow and re-read the same books several times for greater comprehension and connection building. You can read the recommended book before they begin the hands-on work. We understand all children have different preferences and interests when it comes to books (and everything else), so please find our supplemental reads that can replace or add to the suggested books below:

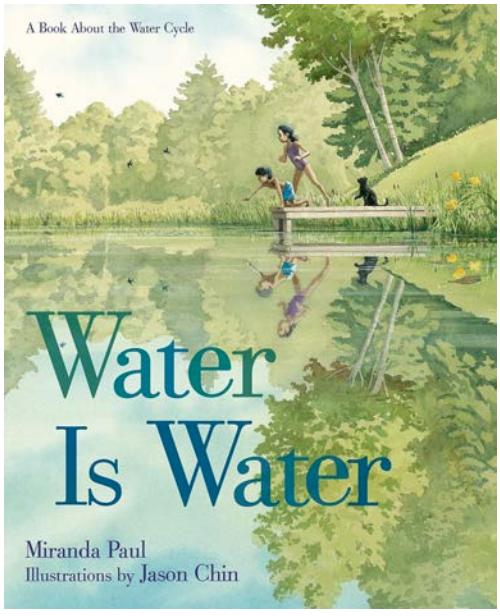


Water, by Frank Asch

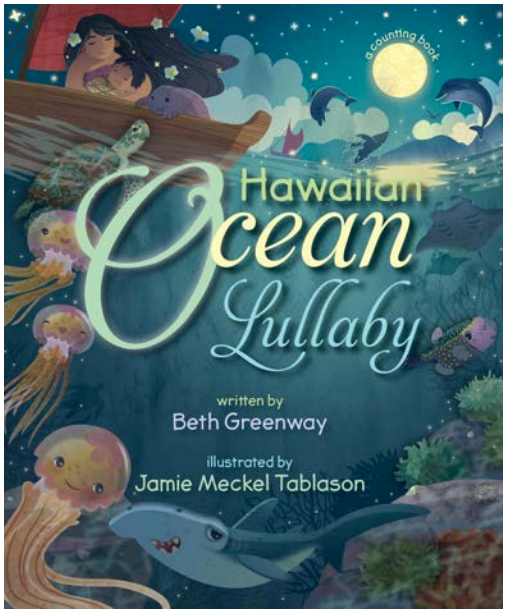


Water Can Be..., by Laura Purdie Salas

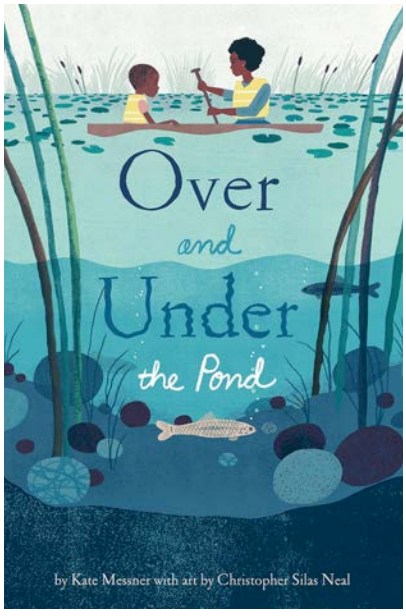
Supplemental Reads:



Water Is Water, by Miranda Paul



Hawaiian Ocean Lullaby, by Beth Greenway



Over and Under the Pond, by Kate Messner

Expanded Play & Experiential Learning

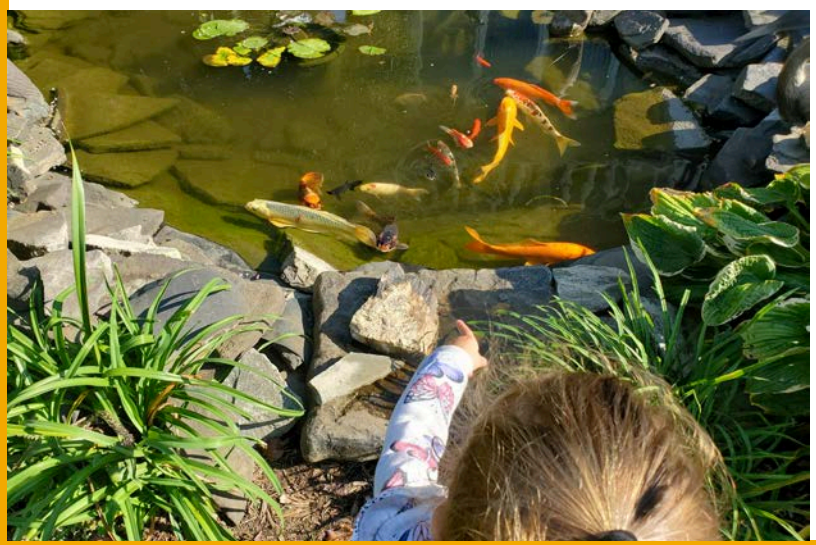
Learning concepts are best adopted when children can make everyday and tangible connections. Support your children's emergent knowledge and experiences by incorporating the topic in different areas of play and exploration.

Practical Life

- Invite children to engage in more practical life activities/age-appropriate chores:
  - Washing dishes, windows, the table, vehicles, and/or toys.
  - Pouring (drinkable) cups of water.
  - Watering house or garden plants.

Water Sensory Stations

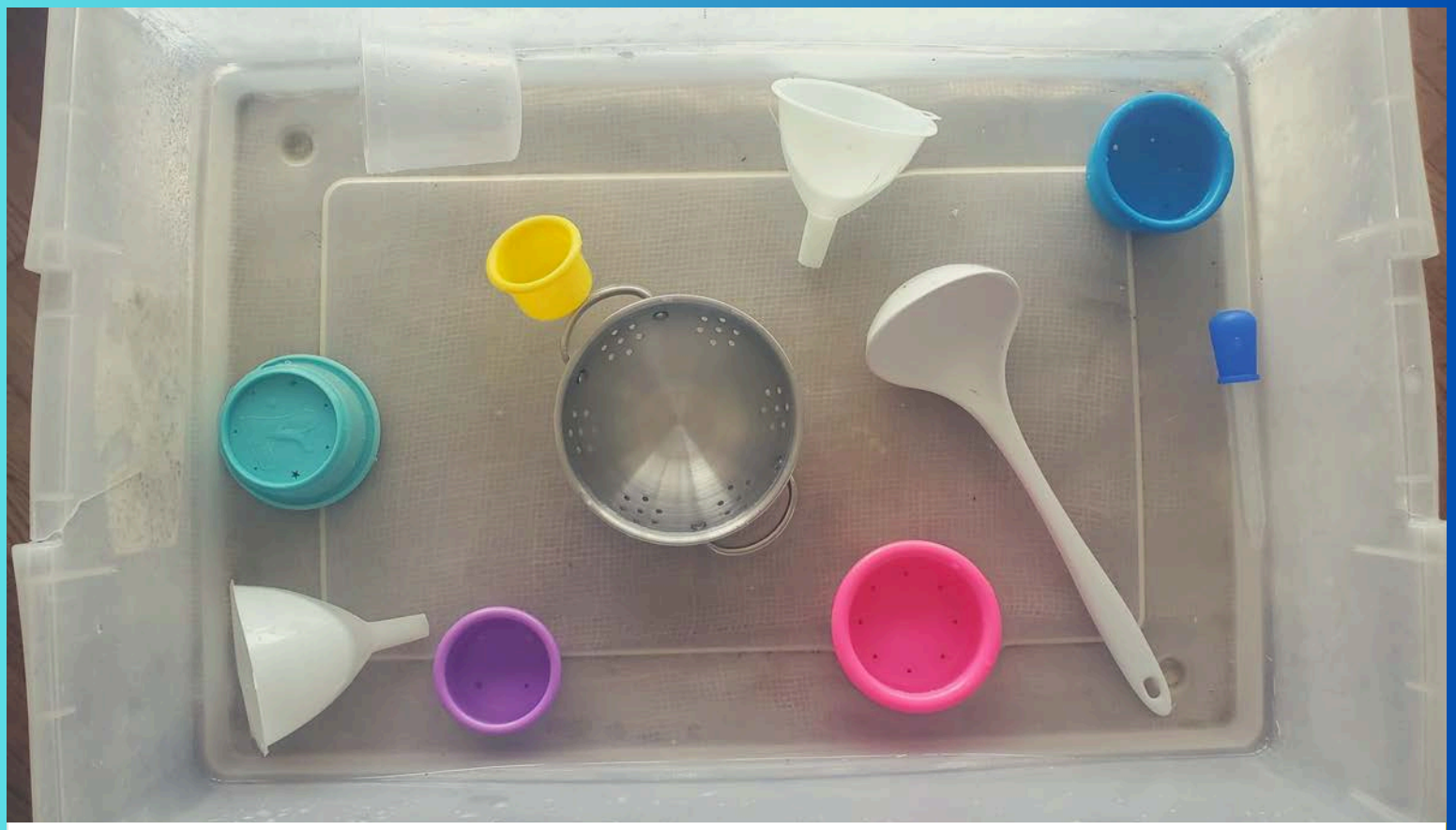
- Set up a large sensory table with water. Consider these options:
  - **Nature Soup:** Water with leaves, pinecones, sticks, and spoon.
  - **Aquatic Animals:** Water with aquatic animal figures.
  - **Arctic Oceans**: Water with large chunks of ice and arctic animal toys, penguins, orca whales, etc.
  - **In the Kitchen:** Water with measuring cups, spoons, bowls, spatula



Water Scavenger Hunt

- Go around the environment or out into the community to see if and where you can find sources of water, e.g.:
  - Aquarium
  - Ponds / Lakes / Oceans
  - Fountains
  - Sprinklers
  - Marina

ACTIVITIES



Water Exploration

MATERIALS

- Large bin/container or sensory table
- Water
- Materials to support water play (e.g. measuring cup, about 3 small bowls/jars/containers, funnels, droppers/basters, etc.)
- Mops, towels, and/or butcher paper to support clean-up.

DIRECTIONS

- Fill a large shallow bin (at least halfway up) with water.
- Add some objects that support water play, such as cups, bowls, funnels, basters, etc.
- Ideally, you can set up the water table in a "yes" space, meaning your child has the opportunity to really splash the water as they see fit. If you do not have an outdoor space to utilize, consider adding butcher paper and towels around a space in the home where you feel comfortable with water splashing.

LEARNING OBJECTIVES

- **Approaches to Learning:**
  - Provides an outlet for children to embrace their preferred way to explore and learn, e.g. Gentle, cautious, and pre-calculated engagement, or active, energetic, and spontaneous engagement.
- **Social and Emotional Development:**
  - Water play has the ability to relax and/or excite, while supporting self regulation and increasing body awareness.
- **Cognition:**
  - Observes and experiments with concepts of cause-and-effect, sink or float, velocity, and units of measurement (e.g. density, weight, volume).
  - Aspects of physics are embraced through force (splashing/pouring), (water) flow, and movement.
- **Motor:**
  - Fine motor skills are supported by splashing, pouring, scooping, and moving the water.
  - Visual perception is supported as some items float on the surface while others sink to the bottom.
  - Water resistance challenges the larger muscles, as well as your child's ability to balance and coordinate around the water bin. All of which supports gross motor development.

Water + Sponges + Cups

MATERIALS

- 1 large & shallow container/bin to hold water
- Water
- One - two sponges
- Cups or stacking cups
- Towels to place around the water play & mop

DIRECTIONS

- Fill your large shallow container or bin with water & add sponges and cups.
  - Consider going outside if weather permits.
- Allow children to freely explore and experiment with the water and cups.

LEARNING OBJECTIVES

- **Cognitive Development:** Children learn about cause and effect, object permanence, and spatial relationships through water play with sponges and cups. They observe how water behaves when poured or squeezed, understand that objects can be hidden and revealed in water, and explore concepts such as full and empty, floating and sinking.
- **Language Acquisition:** Water play provides opportunities for language development as children engage in verbal interactions with caregivers, describing their actions, making observations, and imitating words related to water play. Caregivers can introduce vocabulary related to water properties, actions, and objects to enrich language skills.
- **Social Interaction:** Water play can be a social activity when children engage with peers or caregivers, promoting social interaction, turn-taking, and cooperative play. Children learn to share materials, communicate their intentions, and negotiate play scenarios, fostering social-emotional development.

Sink or Float?

MATERIALS

- Large bin/container or sensory table
- Various objects (e.g., plastic toys, wooden blocks, paper clips, aluminum foil, rubber balls, etc.)
- Writing materials for recording observations
- Towels/mop for clean-up

DIRECTIONS

- Fill the container/bin/table with water.
- Choose a variety of objects for experimentation.
  - You can invite your child to choose materials too!
- Have children place objects in water.
- As children explore and play with the water and materials, you can highlight your observations to embrace connections and concepts of sinking and floating, e.g. "Look!" The lego is at the top of the water! It's floating. And the rock is at the bottom of the bin. It sunk. I wonder why the lego stays up and the rock goes down?"
  - Please note, we do not expect toddlers to grasp the concepts of sinking and floating, however, natural play and exploration will allow for opportunities for young children to observe these concepts in a natural and meaningful context.

LEARNING OBJECTIVES

- **Scientific Inquiry:** Encourage curiosity and exploration as children predict, observe, and analyze outcomes.
- **Critical Thinking:** Stimulate critical thinking by prompting children to make predictions and analyze the reasons behind the outcomes.
- **Language Development:** Enhance vocabulary and communication skills as children describe and discuss their observations.
- **Fine Motor Skills:** Improve fine motor skills through handling and placing objects in the water.
- **Data Recording:** Introduce basic data recording skills through drawing, writing, or charting the experiment results.

Water Beads Bin Play

MATERIALS

- Water beads
- Large, shallow container or sensory bin
- Water
- Optional: Small scoops, cups, bowl, spoons, magnifying glasses

DIRECTIONS

- Soak the water beads in water according to the package instructions. This usually involves placing them in a container with plenty of water for a few hours or overnight until they have fully expanded.
- Invite the children to explore the water beads with their hands, feeling the unique texture.
- You may add various materials to expand upon their exploration and play (scoops, cups, etc.)
- **Safety Note:** Always supervise children during water bead play to ensure they do not put the beads in their mouths, as they can pose a choking hazard. Make sure to use non-toxic, safe water beads specifically designed for children's play.

LEARNING OBJECTIVES

- **Sensory Exploration:** Children will engage their sense of touch, experiencing the smooth and squishy texture of the water beads. This sensory play helps develop tactile discrimination and sensory integration.
- **Fine Motor Skills:** Scooping, pouring, and manipulating the water beads with tools like spoons and cups enhance fine motor development, hand-eye coordination, and dexterity.
- **Cognitive Development:** Children will practice problem-solving and critical thinking as they explore different ways to play with and manipulate the water beads. Because this engages the senses and interests, children will stick with this play for an extended period of time, increasing focus and attention span.
- **Language Development:** Engaging in water bead play provides opportunities for children to describe their experiences and actions, enhancing their vocabulary and language skills. Playing alongside peers can encourage social interaction and communication, fostering language development.

Small World Ocean Play

MATERIALS

- One large bin/container/sensory table
- Water
- Ocean Animal Toys
- Optional: Ocean themed materials (seashells, rocks, stones, sea glass, starfish, fish tank accessories, etc,)

DIRECTIONS

- Fill a sensory table or bin at least halfway with water
- You can add a few ocean-themed materials to the table, while leaving some out to provoke children to utilize how they see fit.
- Allow children to explore the water and materials in their own way.

LEARNING OBJECTIVES

- **Creative Thinking:** Children will begin making more connections to the uses and purposes of water, utilizing creative thinking and imagination, which are fostered through small world play.
- **Mathematical Concepts:** Various materials contribute to 1:1 correspondence, counting and assessment of materials (comparing/contrasting uses and functions).
- **Fine and Gross Motor Skills** are fostered as children navigate around the table, reaching and bending while stabilizing their core and controlling their movements. Handling various small materials with their hands and fingers improves dexterity and hand-eye coordination.

Save the Ocean Animals!

MATERIALS

- Large bin/container or sensory table
- Water
- About 3-5 aquatic animal toys
- Pipe-cleaner (1 for each animal)
- Optional:
  - A handful or caps & a handful of seashells
  - A tray to hold the pipe-cleaners & caps

DIRECTIONS

- Fill bin (at least halfway up) with water.
- Wrap each aquatic animal toy in pipe-cleaner & add to water.
  - Based on the children's fine motor skills, you can adjust the challenge by making the pipe-cleaners more tight/more loose.
- If you have, add some seashells and bottle caps (or another form of plastic to the water).
- Invite children to "save the aquatic animals!"
- You can also have them consider what belongs/does not belong in the ocean (seashells & caps)
- Have children add the pipe-cleaners and plastic to a tray out of the water - yay! they saved the animals!

LEARNING OBJECTIVES

- **Social and Emotional Development:** Dramatic play allows children to make connections to their everyday experiences which helps them process, formulate ideas, & construct meaning. Playing a game such as "save the aquatic animals" lay the groundwork for conservation and care for other living things.
- **Cognition:** Making connections on how water can be used as a home for living animals. Exploring aquatic animals helps your child compare and contrast characteristic of different creatures that live in water.
- **Mathematical Concepts:** Children can sort, organize, count, and categorize materials (what does and does not belong in the ocean? How many animals were “saved?” How many caps did we collect from the water?”
- **Language:** Dramatic play encourages expressive language, while adults can model appropriate language that enhances vocabulary.
- **Motor:** Having to unravel the pipe-cleaners requires dexterity and hand-eye coordination, while water play supports depth perception as some materials sink, while other float.

Spray Bottle Art

MATERIALS

- Empty spray bottles
- Water
- Washable surface to spray (butcher paper, several sheets of construction paper, sidewalk, etc.)
- Optional:
  - You can fill the bottle with water and/or mix things up by adding Watercolor and spring white butcher paper.
- Paper towels or towels to pick-up excess water

DIRECTIONS

- Fill your spray bottle(s) with water.
  - You can also add some watercolors to each spray bottle for some color fun. For deeper colors, add more drops.
- If working inside, set up a large area lined with butcher paper (on the walls and floor).
- If working outside, find a clearing on a sidewalk where children can spray.
- If using colored water, ensure the surface is safe from stains from the watercolors.
- You can expand upon this experience by having children use a spray bottle to water plants or help “clean” the windows.

LEARNING OBJECTIVES

- **Social and Emotional Development:** Child-led experiences promote confidence, decision-making, autonomy, & self-regulation, as well as fueling their intrinsic motivation and natural curiosity to learn and experiment.
- **Cognition:** Experimenting with concepts of cause and effect, fluidity, force, velocity, absorbency, and gravity (watching water drip down), while increasing Attention, focus, and connection building.
- **Motor:** Children will have to apply force, grip, and control with their fingers and hands to spray their bottles, increasing fine motor development, while the flexibility to move their entire body in different positions (bending, stretching, crouching, reaching, etc.) strengthens larger muscles, while improving balance and coordination.
  - Visual and depth perception is practiced as children may experiment with different positions (going closer and further away from the canvas).

Exploring Ice

MATERIALS

- Ice cubes
- Tray or shallow container

DIRECTIONS

- Fill a large shallow bin with ice cubes
- As a long term extension, you may eventually add some materials in which your child can scoop and pour the ice cubes, such as spoons, cups, bowls, and tongs.
  - Start slow with only ice, revisit, and slowly add new materials.
- Ideally, you can set up the water table in a "yes" space, meaning your child has the opportunity to really explore the cubes as they see fit.
- **Activity extensions:**
  - On other occasions, fill a bin with water, ice, and cups.
  - On other occasions, add ice cubes to a bowl or bin and allow children to paint them with watercolors.

LEARNING OBJECTIVES

- **Sensory Stimulation:** Children experience the unique sensory properties of ice as they touch, hold, and observe the cold and slippery texture. They develop tactile sensitivity and learn about temperature differences.
- **Cause and Effect:** Children explore cause-and-effect relationships by observing how ice melts and changes state when exposed to warmth or pressure. They learn about the concept of transformation and the effects of environmental factors on materials.
- **Curiosity and Discovery:** Ice exploration sparks children's curiosity and encourages them to investigate the properties and characteristics of ice. They engage in hands-on exploration and experimentation, promoting a sense of wonder and discovery.
- **Problem-Solving:** Children use problem-solving skills to navigate challenges encountered during ice exploration, such as finding ways to pick up ice chunks.
- **Sensory Regulation:** Engaging with ice can help children regulate their sensory experiences and emotions, providing a calming, grounding, or even exciting activity.

Ice Excavation

MATERIALS

- Small container/s or molds
- Small toys or objects (e.g., figurines, loose parts, etc.)
- Water
- Freezer
- Tools to excavate (e.g. hammer, spoon, sticks, screwdriver, water and pipette, etc.)
- Towels for cleanup

DIRECTIONS

- Encourage your child to select small toys or objects that fit into the container/s. Discuss the different shapes, sizes, and textures of the items.
- Have children arrange the selected toys or objects in the plastic containers. Encourage creativity and fine motor skills as they position the items in different ways.
- Assist in filling the containers with water and place the filled containers in the freezer and wait for the water to freeze around the toys, creating ice blocks.
- Once the ice blocks are fully frozen, remove them from the containers. Discuss the transformation from liquid to solid and introduce the concept of excavation. Provide children with tools for the excavation process.
- Let children explore the sensory experience of excavating the toys from the ice blocks. Discuss the changing textures as the ice melts and the toys are revealed.

LEARNING OBJECTIVES

- **Sensory Exploration:** Develop sensory awareness as children engage with the changing textures and temperatures during the ice excavation process.
- **Motor Skills:** Enhance fine and gross motor skills through the use of full body movements (limbs, hands, and fingers) and tools during the excavation, promoting coordination and control.
- **Scientific Inquiry:** Introduce basic concepts of freezing and excavation, fostering an understanding of states of matter and cause-and-effect relationships.
- **Creativity and Expression:** Encourage creative thinking as children arrange toys in the containers and explore different methods of ice excavation.

Painting With Ice

MATERIALS

- Ice cube trays
- Water
- Watercolors
- Craft sticks or popsicle sticks
- Paper or canvas sheets

DIRECTIONS

- Fill ice cube trays with water and add a few drops of watercolors to each compartment. Place a craft stick or popsicle stick in each compartment as a handle. Freeze until solid.
- Provide each child with paper or canvas sheets for painting. Ensure the space is covered or suitable for potential drips.
- Remove the colorful ice cubes from the trays. Discuss the transformation from liquid paint to frozen cubes and the potential for vibrant artwork.
- Encourage children to explore the ice cubes by holding the craft stick handles and observing the changing colors as the ice melts onto the paper or canvas.
- Discuss the colors created as the ice cubes melt and blend together. Encourage children to observe the magical color transformations.

LEARNING OBJECTIVES

- **Sensory Exploration:** Stimulate sensory development as children engage with the cold, melting ice cubes and explore the changing textures and colors.
- **Fine Motor Skills:** Enhance fine motor skills through the manipulation of craft sticks and the delicate process of painting with melting ice cubes.
- **Color Exploration:** Introduce color concepts and color mixing as children observe the vibrant hues created by the melting ice cubes.
- **Creative Expression:** Foster creativity by allowing children to experiment with different painting techniques and the unpredictable nature of melting ice.
- **Canvas Manipulation:** Develop an understanding of cause and effect as children manipulate the canvas or paper to control the flow and direction of the melted paint.
- **Cleanup Responsibility:** Encourage responsibility by involving children in cleanup, reinforcing the importance of maintaining a tidy creative space.

Watercolors Over Different Textures

MATERIALS

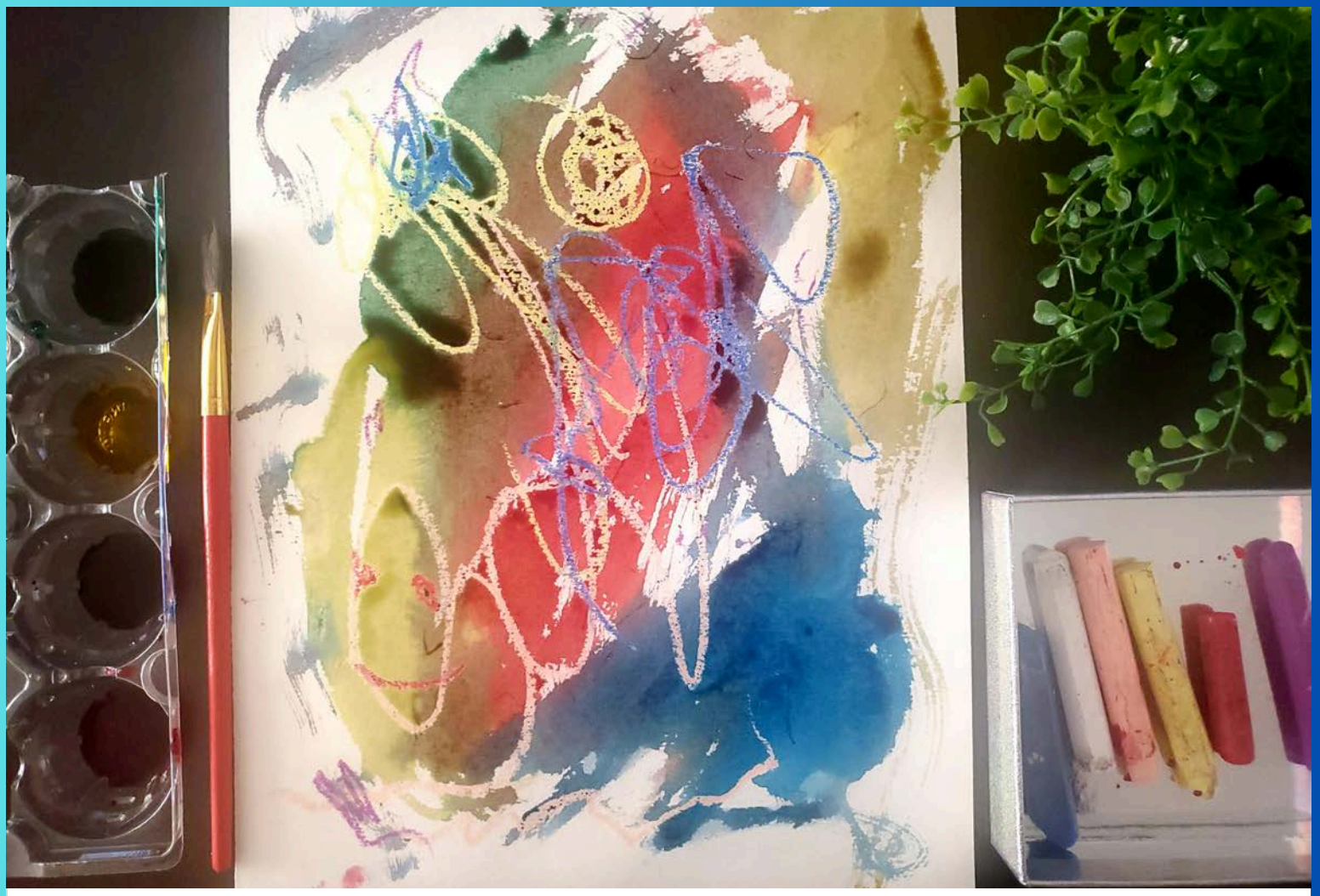
- Watercolor paints
- Paintbrushes
- Watercolor paper
- Paper towels
- Aluminum foil
- Cardboard pieces
- Towels for cleanup

DIRECTIONS

- Set up a palate of different textured surfaces for painting: small piece of watercolor paper, paper towels, aluminum foil, and cardboard for each child.
- Allow children to freely express themselves on each surface. Encourage experimentation with color mixing, brush techniques, and layering to discover the qualities of each texture.

LEARNING OBJECTIVES

- **Textural Exploration:** Foster an understanding of different textures and how they influence the application of watercolors.
- **Fine Motor Skills:** Enhance fine motor skills through the use of brushes and the controlled application of watercolors on various surfaces.
- **Artistic Expression:** Encourage creative expression as children experiment with colors, textures, and techniques on different materials.
- **Observation and Analysis:** Stimulate observational skills by prompting children to analyze how watercolors react differently on each surface.



Watercolors & Oil Pastels

MATERIALS

- Watercolor paper or thick drawing paper
- Watercolor paints and brushes
- Oil pastels
- Water cups and brushes for cleaning
- Towels or paper towels for cleanup

DIRECTIONS

- Provide children with watercolor paper or thick drawing paper. The texture of the paper will enhance the overall effect of the art.
- Introduce watercolor paints and oil pastels. Discuss their different characteristics: watercolors are transparent and activated by water, while oil pastels are vibrant and work on various surfaces.
- Start with oil pastels to create bold outlines, then apply watercolors.

LEARNING OBJECTIVES

- **Artistic Expression:** Encourage creative expression and experimentation as children explore the combination of watercolor and oil pastel mediums to create unique and vibrant artwork.
- **Medium Understanding:** Develop an understanding of the characteristics and behaviors of watercolors and oil pastels, fostering scientific (how oil and water do not mix) and artistic knowledge and skill.
- **Fine Motor Skills:** Enhance fine motor skills through the precise application of oil pastels and the controlled use of brushes during the watercolor phase.
- **Creativity and Reflection:** Stimulate creativity by allowing children to reflect on their artistic choices and the outcome of their combined watercolor and oil pastel masterpiece.
- **Collaborative Learning:** Encourage peer interaction and the sharing of ideas during the creative process, fostering a collaborative learning environment.

We Skoolhouse

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