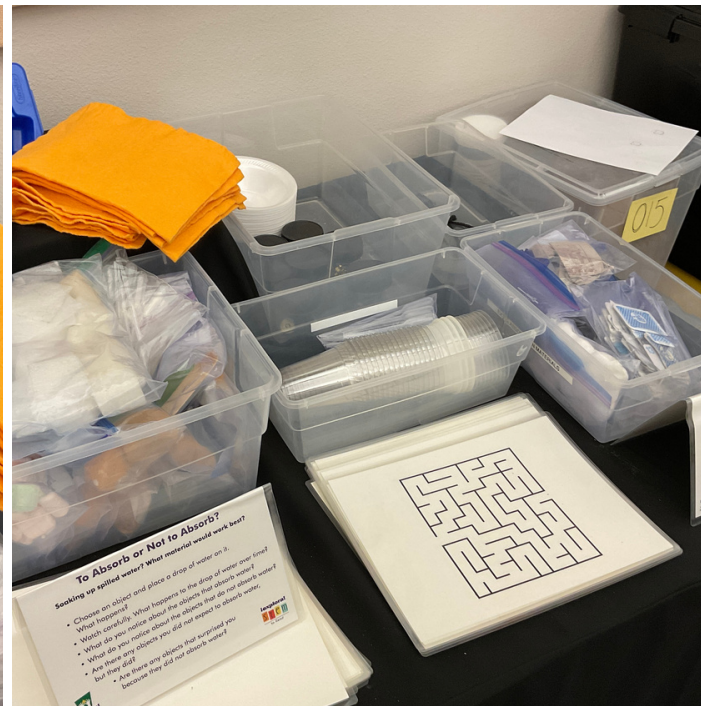
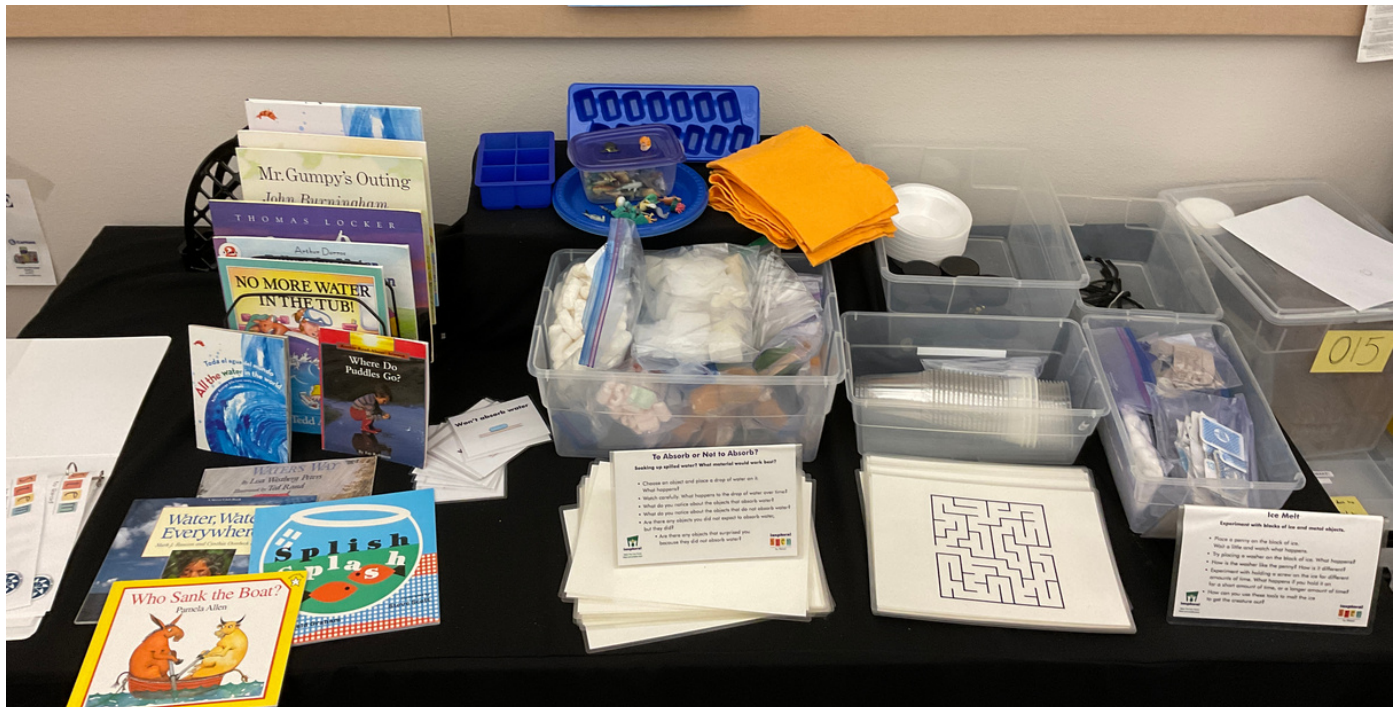


# Water Play



This kit includes fun activities to learn about water. Patrons learn about concepts such as ice and absorption through a variety of fun water activities.



## INVENTORY OF TRUNK

### Water Play

IN

OUT

#### Activity Binder

- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Librarian Instructions                                    |
| <input type="checkbox"/> | <input type="checkbox"/> | Inventory List  |
| <input type="checkbox"/> | <input type="checkbox"/> | Booklist/Introduction                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | A Drop of Water   |
| <input type="checkbox"/> | <input type="checkbox"/> | Ice Melt  |
| <input type="checkbox"/> | <input type="checkbox"/> | To Absorb or Not to Absorb?                               |
| <input type="checkbox"/> | <input type="checkbox"/> | Consumable and Restocking List                            |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>USGS – Adhesion and Cohesion of Water</i>              |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>USGS – Are Raindrops Shaped Like Teardrops?</i>        |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>USGS – Why Raindrops are Different Sizes</i>           |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Why does ice melt faster in the water than in air?</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>How does salt melt ice and snow?</i>                   |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Water – What is Water? An Unusual Liquid</i>           |
| <input type="checkbox"/> | <input type="checkbox"/> | Parent surveys  |
| <input type="checkbox"/> | <input type="checkbox"/> | 2 laminated activity sheets                               |

#### Books

- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <i>All the Water in the World</i> by George Ella Lyon and Katherine Tillotson (hardcover)           |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>All the Water in the World</i> by George Ella Lyon and Katherine Tillotson (bilingual paperback) |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Follow the Water from Brook to Ocean</i> by Arthur Dorros  |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Mr. Gumpy's Outing</i> by John Birmingham  |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>No More Water in the Tub!</i> by Tedd Arnold   |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Splish Splash</i> by Joan Bransfield Graham  |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Water</i> by Frank Asch  |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Water Dance</i> by Thomas Locker   |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Water, Water Everywhere</i> by Mark J. Rauzon and Cynthia Overbeck Bix                           |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Water's Way</i> by Lisa Westberg Peters  |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Where do Puddles Go?</i> By Fay Robinson   |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>Who Sank the Boat?</i> by Pamela Allen   |

### A Drop of Water

- |                          |                          |                         |
|--------------------------|--------------------------|-------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Plastic disposable cups |
| <input type="checkbox"/> | <input type="checkbox"/> | Pipettes                |
| <input type="checkbox"/> | <input type="checkbox"/> | Laminated mazes         |

### Ice Melt

- |                          |                          |                                      |
|--------------------------|--------------------------|--------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Plastic Plates                       |
| <input type="checkbox"/> | <input type="checkbox"/> | Plastic Bowls                        |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 silicone ice cube tray (blue)      |
| <input type="checkbox"/> | <input type="checkbox"/> | 4 plastic ice cube trays (blue)      |
| <input type="checkbox"/> | <input type="checkbox"/> | Tub of small plastic creatures       |
| <input type="checkbox"/> | <input type="checkbox"/> | Jar of metal washers - small         |
| <input type="checkbox"/> | <input type="checkbox"/> | Jar of metal washers - various sizes |
| <input type="checkbox"/> | <input type="checkbox"/> | Jar of metal paper fasteners         |
| <input type="checkbox"/> | <input type="checkbox"/> | Jar of pennies                       |
| <input type="checkbox"/> | <input type="checkbox"/> | Jar of large paper clips             |
| <input type="checkbox"/> | <input type="checkbox"/> | Jar of small paper clips             |
| <input type="checkbox"/> | <input type="checkbox"/> | Jar of nuts and screws               |
| <input type="checkbox"/> | <input type="checkbox"/> | 6 towels                             |

### To Absorb or Not to Absorb?

- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Will Absorb and Will Not Absorb laminated cards   |
| <input type="checkbox"/> | <input type="checkbox"/> | Box of various absorbent materials (i.e. sponges, fabric swatches, felt, coffee filters, etc.)                |
| <input type="checkbox"/> | <input type="checkbox"/> | Box of various non-absorbent materials (wood, cording, packing materials, bubble wrap, plastic squares, etc.) |

### To Be Provided by Borrowing Library\*

- |                          |                          |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Extra absorption materials (cloth, sponges, bubble wrap, fabric swatches, felt, coffee filter paper, cording, wood, cardboard, etc.) |
|--------------------------|--------------------------|--|

\* Some of these materials are provided in the kit but may be recommended to purchase as they will not be restocked by NMSL in the future.

Checked by \_\_\_\_\_ Date \_\_\_\_\_

Checked by \_\_\_\_\_ Date \_\_\_\_\_

# A Drop of Water

## Beforehand:

Check that all materials are in kit. Replace if needed.

**NOTE:** Make sure materials are dry before repacking.

## Materials:

- Plastic cups
- Pipettes
- Laminated plain paper
- Laminated water drop mazes
- Water – to gather
- Towel or some other means to wipe up water – to gather

## Preparation:

Fill 2 to 3 cups half full of water. Place on table. Place five pipettes on the table. Set out 3 to 5 sheets of plain laminated paper and 3 to 5 of the laminated water drop mazes. Set up prompt.

## Questions to Extend Discoveries:

Invite participants to see what they can discover about a single drop of water. Model how to use the pipette to pick up and squirt out water (directions below). Ask participants to see what they notice when they make a single drop of water on the laminated plain paper. Listen to their discoveries and extend them by asking the following questions:

“Use the pipette to make a single drop of water on the laminated plain paper. What do you notice?”

“How can you move the water drop with your pipette?”

“How small a drop of water can you create?”

“Try pushing a drop of water. What happens?”

“Try pulling a drop of water. What happens?”

“What happens if you move two drops of water very close to each other?”

“Try splitting a drop of water into two smaller drops.”

“How can you move a drop of water through the maze?”

**How to use a pipette:** Hold the bulb of the pipette between your index finger and thumb. Pinch your fingers together to squeeze out the air. Place the tip of the pipette into the cup of water; making sure it is below the water line. Release your fingers. Watch the water be suctioned into the pipette. Pick up the pipette. Gently squeeze the bulb to squirt out the water. Vary the amount of pressure to change the size of the drop of water.

# Ice Melt

## Beforehand:

At least 24 hours ahead of time fill ice cube trays with water. Place a small plastic creature in each section. Place ice cube trays in the freezer and freeze until hard.

**NOTE:** Make sure materials are dry before repacking.

## Materials:

- Water – to gather
- Towel or some other means to wipe up water – to gather
- Ice cube trays
- Small plastic creatures
- Variety of metal washers
- Variety of metal screws
- Pennies
- Large paper clips
- Metal paper fasteners
- Plastic plates
- Plastic bowl

## Preparation:

Place a selection of metal washers, screws, paper clips, metal paper fasteners, and a few pennies on the table. Set a bowl of ice cubes in the middle of the table. Set a stack of plastic plates on the table. Set up an example plate with an ice cube that has a metal object sitting on top of it. Set up prompt.

## Questions to Extend Discoveries:

Invite participants to see what happens to the ice when they place a metal object on it. Encourage participants to be patient and observant. As you listen to their discoveries, extend by using the following questions:

“Place a penny on the block of ice. Wait and watch. Be patient. What happens?”

“Try placing a washer on the block of ice. What happens?”

“How is the washer like the penny? How is it different?”

“What happens if you hold a screw on the block of ice?”

“Experiment with holding the screw on the ice for a different amounts of time. What happens if you hold it on for a short amount of time? ...For a longer amount of time?”

“How can you use these tools to melt the ice to get the creature out?”

# To Absorb or Not to Absorb?

## Beforehand:

Check that there are a variety of materials to use for the absorption test.

**NOTE:** Make sure materials are dry before repacking.

## Materials:

- Water – to gather
- Towel or some other means to wipe up water – to gather
- Plastic cups
- Pipettes
- Absorption Sets that include a variety of materials (each approximately 2 inches square) on which to test absorption, to include sponges, bubble wrap, fabric swatches, felt, coffee filter paper, cording, wood, cardboard, etc.
- Will Absorb and Will Not Absorb cards

## Preparation:

Fill 2 to 3 plastic cups half full of water. Set out 4 to 6 pipettes. Place a couple sets of the absorption materials on the table. Make sure to set aside reserved materials to replace wet materials as needed. Set out Will Absorb/Will Not Absorb place cards. Set up prompt card.

**NOTE:** Make sure materials are fully dry before repacking.

## Questions to Extend Discoveries:

Invite participants to choose a material and see what happens if they place a single drop of water on that piece of material. Does it stay on top? Does it soak in or is absorbed? Encourage participants to be patient and observant. As you listen to their discoveries, extend them by asking the following questions:

“What do you notice when you place a drop of water on an object?”

“Watch carefully. What happens to the drop of water on the item over time?”



“What do you notice about the objects that absorb water?”

“What do you notice about the objects that do not absorb water?”

“Are there any that absorbed water which you did not expect to absorb water?”

“Were there items that did not absorb water but you expected them to absorb water?”