



Water Play with Funnels and Tubes

Standard Connection:

- ELA.L.PK4.1d
- ELA.SL.PK4.1b
- M.MD.PK4.1
- M.MD.PK4.2
- PD.SHS.PK.4.3
- PD.SHS.PK4.5
- S.PS.PK4.4
- SS.FC.PK4.5

Enduring Understanding(s):

- As individuals and as a group, family members use their senses to observe and interact with their environment.

Essential Question(s):

- How do you find the resources, information, and support to solve your problems?

| Materials | Vocabulary | Books |
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| <ul style="list-style-type: none"> • funnels • clear plastic tubes of different lengths • cups • plastic containers • ladles • plastic gloves • smocks • bins and trays • food coloring | <ul style="list-style-type: none"> • funnel: hollow cone utensil used to direct water downward • tube: a long, hollow object • faster: with more speed • slower: not fast • pour: to cause to flow in a stream • scoop: to take up or take out | |

Intro to Centers

Preparation: *Set up materials*

If appropriate, make plastic gloves available, or use a smaller amount of water in a shallow tray or bin. Add food coloring to water as a visual support for tracking water movement.

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| <p>"In <i>Oonga Boonga/Crybaby</i>, Baby Louise's tears 'ran like rivers to the sea.' (Baby cried "W-a-a-a-!") with so many tears) Why do you think the author described her crying this way?"</p> | <p>Show illustration. Children respond.</p> |
| <p>"Today in Science, you can experiment with moving water like Baby Louise's (Baby's) tears. You can use these funnels and tubes to move the water faster or slower."</p> | <p>Show materials.</p> |
| <p>"First, scoop the water, then pour the water in the funnel. What do you notice?"</p> | <p>Model. Children respond.</p> |
| <p>"What do you notice if I hold the funnels and tube in different positions?"</p> | <p>Model. Children respond.</p> |

During Centers:

Encourage children to collaborate (one child holds the funnel and tube, while another child pours the water). Encourage children to experiment with holding the funnel and tube in different positions (higher/lower). Encourage children to use different lengths/thicknesses of tubing. Encourage children to document their experiments in Creative Writing.

Guiding Questions During Centers:

- How can you make the water move slower or faster?
- Why is one side of the funnel large and the other small?
- How is moving water with funnels and tubes similar to or different from moving water with waterwheels?
- What do you notice when you hold the funnel and/or tube higher/lower?
- What do you notice when you use different lengths/thicknesses of tubing?

Thinking and Feedback:

- Invite children to share their processes.
- Encourage children to describe the challenges they might have encountered.

Documentation:

- Collect samples of the children's work as well as photographs and/or video of their processes; use the documentation to launch a discussion during Thinking and Feedback.

Provocation:

Invite children to use waterwheels with the funnels and tubes.

Challenge children to construct a water-moving machine using funnels, tubes, and waterwheels. Invite them to think of other materials they could use to move water. Research water moving machines on the internet for inspiration.

Differentiation/Accommodation:

For Intro to Centers, children with limited verbal skills can use a pre-programmed voice output device to answer questions about the story. (Keep in mind these will likely be closed-ended questions, as those are easiest to program into devices.) This can also be used to help children answer Guiding Questions. During Centers, provide a variety of objects for pouring and scooping so that children with a variety of fine motor skill levels can participate.

