



Tide Pool Bins

Standard Connection:

ELA.RI.PK4.10

ELA.RF.PK4.4

M.CC.PK4.6

TH.RE8b.1.PK

S.PS.PK4.1-4


S.LS.PK4.4b-c

Enduring Understanding(s):

- Animals have unique characteristics. Some of these characteristics help them to survive in their habitat.
- Like humans, animals are part of interdependent communities that are affected by and adapt to the environment that surrounds them.

Essential Question(s):

- How do animals form communities, work together, and use and adapt to their environment?

| Materials | Vocabulary | Books |
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| <ul style="list-style-type: none"> • <i>Tide Pools</i> • <i>Eyewitness Books: Ocean or Fish</i> • plastic bin (or any large shallow container such as an aluminum tray) • water, a pitcher to pour the water • smocks (optional) • rocks • sand • shells • coral reef miniature animals • child created tide pool animals (from week 3) | <p>feel: to give a particular sensation through the skin</p> <p>pour: to cause to flow in a steady stream</p> <p>flow: to move in a smooth and easy way</p> <p>high tide: when the sea is at its highest level</p> <p>low tide: when the sea is at its lowest level</p> <p>tide pool: a rocky pool on the beach that stays filled with water when waves move away from the shore</p> |  |

| Intro to Centers | |
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| Preparation: Set up materials. | |
| <p>“Today at the Science Center, we will build a tide pool together! First, we’ll set up the rocks in the bin. We’ll arrange the rocks at different high and low levels to create our tide pool.”</p> | <p>Show materials. Children respond.</p> |
| <p>“Next, we’ll place the tide pool animals you created last week into the tide pool. We’ll slowly pour water into the tide pool to model high tide and watch which animals become covered with water first. We’ll keep adding water until the rocks are mostly covered and the sand is underwater. This is what high tide looks like.”</p> | <p>Add animals and gently pour water. Children respond.</p> |
| <p>“To model low tide, we’ll slowly remove the water. Which animals are no longer covered with water?”</p> | <p>Remove water. Children respond.</p> |
| <p>“Last, we’ll make waves in our tide pool. Do the waves look different in the high water and the low water? Why do you think that is?”</p> | <p>Make waves. Children respond.</p> |

During Centers:

Encourage children to notice which animals are most affected by the pouring and removing of the water. Allow children to feel the rocks and sand at high and low tide. Ask them how the water feels when making waves. Encourage children to pay special attention to the rocks and sand and note how they change at high tide, low tide, and when making waves.

Guiding Questions During Centers:

- What do you notice?
- Which animals do you think will be underwater first? Why?
- What questions do you have?
- How does the water feel in your hands, in between your fingers?
- What do you notice about the water movement?
- What do you want to learn more about, how and where can you find this information?

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 of their processes; use the documentation to launch a discussion during Thinking and Feedback.

Provocation:

Encourage children to apply the information they have learned about tide pools in Creative Arts, Blocks, and Dramatic Play.

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 materials to meet the children's fine motor and sensory needs. For example, gloves can be provided for children who do not wish to get their hands wet.