Ship Ahoy! Nature Boat Craft

**Lesson Summary:** Children will build upon their fine motor, measurement, and observation skills to build their own nature boat. This craft teaches little sailors about the mechanics of floatation, while letting them connect to their environment by utilizing natural and recycled materials.

**Children’s Literature Book Connection:**
- *Over and Under the Pond* by Kate Messner
- *We are Water Protectors* by Carole Lindstrom
- *Float* by Daniel Miyares
- *Here Comes the Garbage Barge!* by Jonah Winter

**Materials Needed:**
- Fifteen sticks of multiples sizes
- Leaves or non recyclable food packaging (potato chip bags, candy wrappers, etc.)
- Ruler
- Scissors
- Glue gun (Always have an adult supervise when using)
- Twine/String
- Optional: Tape

**The Lesson:**
**Essential Questions (Choose based on age and interest)**
How are form and function related? How and why do things float? How does the environment shape our understanding of movement?
Activity Directions:
1. Gather your supplies; Head outside to hunt for natural materials. In your own home, or during a neighborhood cleanup, collect discarded food packaging (wash before use).
2. Take two sticks about the same length (cut if necessary), and place them parallel on the table. This will be the base of your boat.
3. With the rest of the sticks available, glue them to lay across the base. Make sure they are evenly spread out. Put aside to dry.
4. To construct the sail, you can use a large leaf, several small leaves taped together, or pieces of food packaging assembled together. Feel free to get creative!
5. Attach your sail with hot glue to a stick that is thick enough to support the weight.
6. If your base is ready, secure the edges with twine, weaving in and out between the sticks. Tie off or glue the ends.
7. Glue the bottom of the mast to the middle of your base, but leave bit of the stick to hang into the water. This will help prevent the boat from tipping over.
8. Tie a piece of string (as long as desired) to where the base and mast meet, so you won’t lose your boat!
9. Find a body of water to set sail on. This can be at a beach, pond, or even a puddle! Safe travels little sailors!

During the Activity:
Parents should always supervise when the hot glue gun is involved. When sailing your boat in nature, make sure to retrieve any human-made materials that might fall off. Have your child observe how natural elements, such as wind and current, affect the boat’s course. Children can also place small objects or rocks on the boat, to test the limits of its carrying capacity.

Post-Activity Reflection:
(Adapt to age level; these questions spur inquiry and can lead to other questions while motivating creativity and critical-thinking).
- How does the wind, current, or waves affect my boat?
- Does my boat have an environmental impact? Can each part of the boat safely return to the environment?
- What other materials could I have used for my boat instead?
- (If using trash as part of the craft): What would have happened to the food packaging if I hadn’t collected it? Are there other ways I can reuse/reduce waste?