

# Activity Plan

**Designed by: Elena Wild**  
**Curriculum Topic: Water**

<b>OVERVIEW/FRAMING</b>	
<p><b>TOPIC</b> <i>Explain how the topic of this activity is developmentally and culturally appropriate for the group of learners for whom you are designing it.</i></p>	<p>This Activity fits into a larger Curriculum Web called <i>Unit 7: Water</i>. It is an activity within the <i>Science of Water / Does it float/sink?</i> subtheme.</p> <p>The activity is developmentally appropriate as it is designed with the age group in mind and has different layers where children will be challenged in a way that they will succeed. The children will make the paper boats in small groups, this allows for them to support each other and to scaffold where possible. It allows me to give every child the attention they need while giving them the ability to support each other.</p> <p>The activity is culturally responsive through the message of empathy and modeling behavior. The spark of the activity is a book without text. The children fill it with their own voices and feelings. It is an exercise in empathy of understanding what the boy in the book feels and how he can be both sad and happy. I will first model how to make a paper boat and then go through it with smaller groups and numbered picture instructions. The children can try it on their own and can get support from their peers and me. The paper boats will eventually stop floating when the paper gets soaked and that this is ok, that things change and that if a paper boat stops floating, you can make a new one.</p> <p>The activity builds on the natural curiosity of children. It is part of the bigger question of what sinks and floats in water. It will give them a sense of success of being able to fold their own paper boat and making their own discoveries through experiments. The skill will also become more permanent as they will take the numbered instructions home to make more boats with their families.</p>
<p><b>BIG IDEAS/OVERARCHING QUESTIONS</b> <i>What kinds of questions will be explored and/or what new connections and ideas will be engaged through this activity?</i></p>	<p>The big overarching question is what is water? And the answer is as far reaching as water itself: Water is everywhere, it is versatile and integral to life on earth.</p>

	<p>The subtheme is “floating and sinking”, the science of water and its properties. It shows the relativity of things: If you let go of a leaf it slowly falls to the ground, but it will float on water. Other questions that will be explored are on feelings and how we feel through the book, and what shapes are we making and could we make during the folding activity.</p> <p>The students will be exploring their emotions. They will explore how a rectangular paper can be changed into different shapes. They will explore how that shape can float and how it moves when the water moves. They will discover how it will lose its ability to float and explore the concept of changing properties, which is introduced through ice in the previous week.</p>								
<p><b>CONTENT FOCUS:</b> <i>Identify which content area(s) will be addressed in this activity</i></p>	<table border="0" style="width: 100%;"> <tr> <td style="width: 25%;"><b>Visual Arts</b></td> <td style="width: 25%;"><i>Music</i></td> <td style="width: 25%;"><i>Movement/Dance</i></td> <td style="width: 25%;"><i>Drama</i></td> </tr> <tr> <td><b>Emergent Literacy</b></td> <td><b>Mathematics</b></td> <td><b>Science</b></td> <td><i>Social Studies</i></td> </tr> </table>	<b>Visual Arts</b>	<i>Music</i>	<i>Movement/Dance</i>	<i>Drama</i>	<b>Emergent Literacy</b>	<b>Mathematics</b>	<b>Science</b>	<i>Social Studies</i>
<b>Visual Arts</b>	<i>Music</i>	<i>Movement/Dance</i>	<i>Drama</i>						
<b>Emergent Literacy</b>	<b>Mathematics</b>	<b>Science</b>	<i>Social Studies</i>						

<b>KNOWING THE LEARNERS<sup>1</sup></b>	
<p><b>AGE RANGE:</b></p>	<p>This Curriculum Web takes place in the spring of preschool. The students will be around four years old.</p>
<p><b>CURRENT DEVELOPMENT:</b> <i>What do you know about the current growth of learners in this age range for the content focus?</i></p>	<p>Four year olds are interested in different shapes, they can typically count to 20 and beyond. They are curious and able to come up with their own stories and show empathy towards others. They can carry out projects over more than one day.</p>
<p><i>What misunderstandings might children in this age have about the topic/content and how do you plan to address this?</i></p>	<p>They are curious about others and can develop prejudice when left undiscussed. The book reading will be followed up with a discussion how everyone can have different feelings and how those are ok and we respect each other’s feelings.</p> <p>While their fine motor skills are more defined a paper folding activity can still be challenging for them. To support their development, I will use large paper to make the folds easier, especially the last ones and provide them with different forms of instructions to help them understand the folds better.</p>
<p><b>SOCIO-CULTURAL CONTEXT:</b> <i>What do you know about this group of children in terms of their cultural</i></p>	<p>The activity is designed with a New York City preschool in mind. NYC is very diverse and various cultures, languages and learning styles will be represented in my classroom. For many children this will be their first year in a formal school setting.</p>

<sup>1</sup>You may not be designing this activity with a specific group in mind. Envision and describe a group of children you *could* anticipate working with in a NYC early childhood classroom.

<p><i>backgrounds, learning styles, languages spoken, and learning experiences to date? *</i></p>	<p>The reading provided as the spark for the activity (<i>Float</i> by Daniel Miyares) has no words in the story, allowing the students to come up with their own and to exchange different ideas they might have through their background.</p> <p>The instructions for the activity are in various forms to support different learners at different levels. There will be verbal instructions in English as well as numbered pictures to support visual and ESL learners.</p>
---	--

<p><b>MATERIALS &amp; LEARNING ENVIRONMENT PREPARATION</b></p>		
<p><b>MATERIALS</b></p> <p><i>What materials will you need to teach this activity?</i></p> <p><i>List <b>all books (title and author) and materials</b>, including any used during the spark/launch/intro, the activity, the reflection, and during set up and cleanup</i></p>	<p><b>LEARNING ENVIRONMENT</b></p> <p><i>What modifications will you need to make to the classroom to support this activity?</i></p> <p><i>Think about materials, books, toys, props. Think about how you might rearrange the classroom furniture, etc. To accommodate the activity.</i></p> <p><i>Think about changes you might need to make in various learning centers (e.g., what might you add/change in each learning center to bring the curriculum topic into that center), bulletin boards, meeting spaces, etc.</i></p>	<p><b>EVENTS/RESOURCES</b></p> <p><i>What events or resources, including people, might you need to arrange in advance?</i></p> <p><i>Think about special activities, such a field trips, inviting parents or community members to the classroom, asking for supplies from home, etc.</i></p>
<p><b>Spark</b> Book: <i>Float</i> by Daniel Miyares</p> <p><b>Boat Making:</b> Numbered picture instructions on how to fold a paper boat.</p> <p>- The students will be able to take the instructions home and will include a link to a YouTube demonstration to support family members who might struggle with picture instructions</p>	<ul style="list-style-type: none"> <li>- The water table will be in the center of the classroom during the unit water. <ul style="list-style-type: none"> <li>o Whenever the weather allows, we would set up a second water table outdoors for our experiments as a class.</li> </ul> </li> <li>- Rearrange construction center to have space to work with small groups building their paper boats.</li> </ul>	<p>The activity is divided into three parts: The book reading (spark) The folding of the paper boats The experiments with the paper boats.</p> <p>As the folding will happen in small groups I will need another person who can oversee the activities of the rest of the classroom while I work with each group.</p>

<p>Large colorful paper Pens, Crayons, Sticker for decoration</p> <p><b>Experiment:</b> Water table:</p> <ul style="list-style-type: none"> <li>- Containers filled with water</li> <li>- Towels for cleanup</li> </ul> <p>Note taking pad to record the experiment. Camera to take pictures</p>		<p>Because the activity includes testing and playing with water, I need to make sure that each child has a change of clothes at school beforehand.</p>
--	--	--

<p style="text-align: center;"><b>THE LEARNING EXPERIENCE</b></p>		<p style="text-align: center;"><b>Multimodal Engagement</b></p> <p><i>Identify and explain how this activity provides opportunities to use <b>at least</b> three learning modalities: musical, interpersonal, linguistic, visual-spatial, bodily-kinesthetic (tactile), auditory</i></p>	<p style="text-align: center;"><b>Differentiation</b></p> <p><i>How will you modify this activity for children with different learning styles and needs? (emergent bilingual, special needs, very physically active, etc.)</i></p>
<p><b>The spark/launch/intro</b> <i>What will you say or do to engage the children in this experience?</i></p> <p><i>To define specific vocabulary, concepts, or procedures, describe how you would introduce them.</i></p>	<p>The spark of the activity is a reading and discussion of the book <i>Float</i> by Daniel Miyares. I will ask the students to fill in the story that go with the pictures in the book.</p> <p>Possible Questions:</p> <ul style="list-style-type: none"> <li>• What did the boy play with?</li> <li>• Why did he have to chase the boat?</li> <li>• Where did the water come from?</li> <li>• How did he feel when he found it in the river?</li> <li>• How can we know what floats?</li> <li>• Why do things float or sink?</li> </ul>	<p><i>Linguistics</i> The reading of the book <i>float</i> encourages children to come up with their own stories for the pictures supporting their language development.</p>	<p>To make the activity accessible the instructions are provided in different forms to support different learners.</p> <ul style="list-style-type: none"> <li>• Visual instructions through modeling the activity</li> </ul>

	<p>After the discussion I will invite the children to watch me demonstrate/model how to fold a paper boat themselves and add the material with instructions to the construction center where we can make our own boats in small groups.</p>	<p><i>Interpersonal</i> The discussion on the book is an opportunity for students to reflect on other students emotions and use their empathy.</p>	<ul style="list-style-type: none"> <li>• Verbal instructions through explaining the steps.</li> <li>• Numbered picture instruction (pre-reading / understandable independent of native language)</li> </ul>
<p><b>The activity</b> <i>What will the children be doing? List the procedure step-by-step. What will you say or do to support their process?</i></p> <p><b>Remember:</b> <i>This should be a creative, experiential, and hands-on learning activity. The children should be <b>actively</b> engaged in learning through play and exploration.</i></p>	<p><b>Float your Boat</b></p> <p>After the spark activity. I will work with small groups and fold paper boats. I will model the activity for them and explain every fold. They can follow my instructions as well as look at a visual instruction page. I will encourage them to try and support each other, make sure that they can start again if they need to and repeat instructions. I will ask them about the shapes we are making, and which step we are on.</p> <p>Once they all made their own paper boat, they can decorate it and I will work with another group.</p> <p>The next day, or after everyone has finished their boats, we can put them to the test in the water. Before the children start the experiment, they will wash their hands to help the water stay clean.</p> <p>If the weather allows the activity will be outside where we can make use of a larger basin of water and incorporate different movement into the experiment.</p>	<p><i>Visual spatial</i> The folding of the paper makes use of their spatial skills and their ability to perform transformations from a rectangular to a boat</p> <p><i>Intrapersonal</i> At the end of the activity when the boats are soaked in water and cannot float anymore, we will have room for reflections where students have space to explore their feelings and be supported by the educators in the process.</p>	<p>The activity has different elements, while the folding is mainly a quiet seated, the experiment is physical where the students can walk around and explore the properties of their boats actively.</p> <p>Students with low sensory thresholds will be allowed to take the instructions and work on their boats on their own with the instructor checking in on them from time to time.</p>

	<p>I will ask them about their predictions, and we will write them down and take pictures. They can use their arms to create waves or blow at their boats to move them for races. Eventually the paper will be soaked and stops to float. This moment is prepared through the reading and we can discuss again why it stopped floating and reassure them that they can make a new boat.</p>		
<p><b>Reflection</b>  <i>As the activity wraps up, what opportunities will you offer the children to respond to and reflect on this activity?</i></p>	<p>After the experiments we will dry off and discuss what we have found during circle time.  We will discuss how the boats reacted to the different circumstances in the water and how they felt when they got soaked with water.  At the end of the day each child receives a numbered picture instruction to make paper boats that they can take home and teach their family.</p>		
<p><b>Possible Extensions</b>  <i>What could you do on another day to build on this activity?</i></p>	<p>The instructions will be available at the construction center for the rest of the school year for students to make more paper boats that can be used in different parts of the classroom.</p> <p>We will also have more float and sink experiments in the water curriculum that builds on the experience.</p> <p>The boat folding is an origami, and this skill can be used again to make other shapes in other parts of the curriculum.</p>		

## GROWTH AND LEARNING

*How will this learning experience support the children's growth and learning be in the following domains?  
Use your knowledge of child development and milestones and the theories of child development you have studied.*

<b>Cognitive/thinking</b>	Children will be able to fold paper into different shapes and engage their thinking. They will develop their scientific understanding of water and water properties (float and sink). The activity includes several discussions and conversations to improve their story-telling and reflection.
<b>Physical</b>	The learning experience will develop their fine-motor skills by strengthening their small muscles in the hands during the folding activity. They will gain increased precision preparing them for writing.
<b>Social/emotional</b>	The reading and discussion on emotions will increase their understanding of others and develop their empathy. The experiment part will help them learn how to work cooperate and share space.
<b>Language/literacy</b>	During the discussions children will tell their own stories. They will describe and compare the results of the floating experiment and utilize new vocabulary. <hr/> <b>target vocabulary words:</b> <i>Boat, Swim, Float, Sink, Soak, Absorb, Sponge, Dissolve</i>
<b>Creative Arts</b>	Children will use the technique of folding paper (origami) to create shapes. They will choose their own color for the paper and decorate their boats to express themselves and their personality artistically.

**STANDARDS/GOALS<sup>2</sup>**

*What Pre-K Foundation for the Common Core (PKFCC)/Common Core Learning Standards (CCLS) are addressed in this activity?  
Be specific—choose those standards that are **actually targeted** by this learning activity (e.g., can development in regard to the standard be measured by the evidence gathered (authentic assessment) during this learning activity?)*

Domain 1: Approaches to Learning	3c) Experiments to further his/her knowledge. 4c) Actively explores how things in the world work. 5b) Seeks assistance when the next step seems unclear or appears too difficult.
Domain 2: Physical Development and Health	5. Demonstrates eye-hand coordination and dexterity needed to manipulate objects. c) Uses materials such as pencils, paint brushes, eating utensils and blunt scissors effectively.
Domain 3: Social and Emotional Development	1f) Identifies the range of feelings he/she experiences, and that his/her feelings may change over time, as the environment changes, and in response to the behavior of other. 5a) Seeks input from others about a problem. 6c) Uses materials purposefully, safely and respectfully as set by group rule.
Domain 4: Communication, Language, and Literacy	1a) Participates in small or large group activities for story telling, singing or finger plays. 2c) Uses new vocabulary correctly. 3a) Uses vocabulary relevant to observations.
Domain 5: Cognition and Knowledge of the World (Choose math, science or social studies)	<b>Mathematical Practices</b> f) Attend to precision. g) Look for and make use of structure. Know number names and the count sequence Identify and describe shapes (squares, circles, triangles, rectangles).

<sup>2</sup>Refer to the “Pre-K Common Core Learning Standards and Domains for Learning” located on Blackboard in the Assignment materials to identify Learning Standards that you will list above.



**Scientific Thinking**

- 1c) Makes observations and describes changes in objects, living things, and natural events in the environment.
- 2c) Replicates or changes the experimental approach.
- 2d) Records and organizes data using graphs, charts, science journals, or other means of recording.

**AUTHENTIC ASSESSMENT**

1. *What will you do to determine whether or not the children are getting the Big Ideas and/or exploring the Overarching Questions?*

2. *What evidence will you gather to assess each child's developmental progress?*

3. *Evidence may include responses recorded during a group discussion, a visual arts project, a performance, etc.*

I will have different forms of assessment. I will note down themes during the story time that children point out and discuss with them.

Another point of assessment is the finished paper boats that all students will create. I will see which form of instructions worked best for them and how much help they required.

The second form of assessment is for the experiment. I will have a discussion with the students, and we will look at our notes from the experiment. I can compare their predictions to the outcome and their reflection of it. The notes from the experiment and the notes from the discussion will be part of my evidence to assess their understanding. I will also take pictures of their boats before we float them and during the experiment to have visual evidence.

**POST-ACTIVITY REFLECTION<sup>3</sup>**

1. *What aspects of this activity do you think will be most successful in supporting children's growth and learning?*
2. *What surprises might there be?*
3. *What challenges do you envision in implementing this activity?*
4. *How might you modify this activity the next time to make it more successful?*

The paper folding into a boat will be the most successful, as it is a new ability and the students can take pride in the achievement. They will have the instructions and can share and teach other members of their homes how to do it.

The floating experiment is the first in a series of experiments and lays the foundation for the understanding of the water property.

The folding can be challenging on their own as it relies on fine motor skills that might not be as refined. I rely heavily on scaffolding during that part of the activity through the different forms of instructions and modeling the activity.

The unit will be in the spring of pre-k and I will have spent several months with my students to understand where their development is. I anticipate that some students will need more help than others and depending on the class I can include more family engagement at the beginning of the activity instead of at the end. I would start the spark one day and send them home with instructions and have them make paper boats  
Include more family engagement – if the class does not feel ready. Start the activity and send them home with instructions for family to make boats and bring them in the next day for the experiment.

---

<sup>3</sup> You will not have the opportunity to implement this activity. However, you should build the practice of reflecting upon your teaching and striving to improve each lesson.