

UNIT PLANNING TEMPLATE

Unit Topic / Guiding Question: Grade 2 Science: Water Conservation

Rationale: The purpose of this lesson is to introduce students to the concept of water conservation, for the class to gain an understanding that fresh water is a limited resource and is not being replaced at the same rate as it is being used. Students have just completed a science unit on the water cycle, and have a good understanding of evaporation, condensation, precipitation, and runoff. Through these lessons, students will continue their learning about water and its importance to communities and the environment. Students will have the opportunity to engage in hands-on, experiential activities of building their own rain catchers and measure the rainfall over a period of time.

UNDERSTA ND	Big Ideas Water is essential to all living thir cycles through the environment	ngs, and it			Essential Questions water important for all living things? In you conserve water in your home and school?	
DO	Core Competencies:					
	Communication	A Thinking		P	Personal & Social	
	□ Communicating	□ Creative Thinki	ng		Personal Awareness & Responsibility	
	□ Collaborating	□ Critical & Refle	ctive Thinking		Positive Personal & Cultural Identity	
	Collaborating: In familiar situations, I	Critical and Reflective Thinking: I can use evidence to make simple judgments. I can ask questions, make predictions, and use my senses to gather information. I can explore with a purpose in mind and use what I learn. I can contribute to and use simple criteria. I can find some evidence and make judgments.			Social Awareness & Responsibility	
	cooperate with others for specific purposes. I contribute during group activities, cooperate with others, and listen respectfully to their ideas. I can work with others for a specific purpose.				Social Awareness & Responsibility: I can take purposeful action to support others and the environment. I can identify ways my actions and the actions of others affect my community and the natural environment. I look for ways to make my classroom, school, community, or natural world a better place and identify small things I can do that could make a difference.	



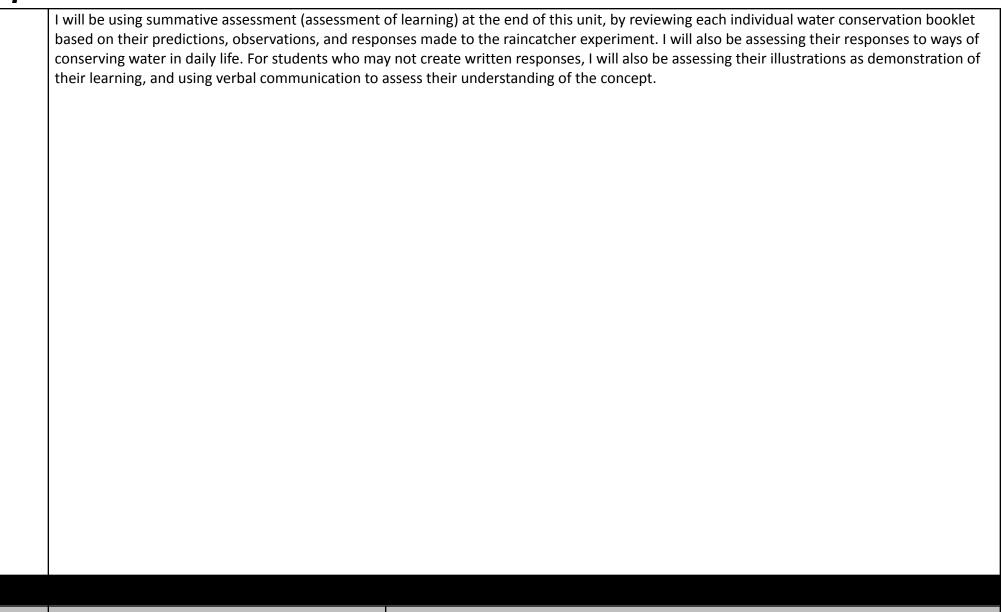
KNOW	Learning Standards – Curricular Competencies: Demonstrate curiosity and a sense of wonder about the world Safely manipulate materials to test ideas and predictions Make simple predictions about familiar objects and events Make and record simple measurements using informal or non-standard methods Consider some environmental consequences of their actions			
KNOW	Learning Standards - Content: Students are expected to learn about water conservation, focusing on fresh water as a limited resource and how it is not being replaced at the same rate it is being used.			
First Peoples Principles of Learning	 Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors. Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place). Learning involves recognizing the consequences of one's actions. Learning involves generational roles and responsibilities. Learning recognizes the role of indigenous knowledge. Learning is embedded in memory, history, and story. Learning involves patience and time. Learning requires exploration of one's identity. Learning involves recognizing that some knowledge is sacred and only shared with permission and/or in certain situations. 	Comments on how you will address the FPPL: This lesson aligns with the FPPL, "Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors". Students will engage in activities to demonstrate the connection between natural resources and local communities, and the importance of protecting these natural resources to preserve for future generations. Class discussions will include how previous generations and ancestors used natural resources and what they did to protect them. Students will discuss and engage in ways they can take small steps every day to conserve natural resources, specifically, freshwater resources.		

Formative Assessment (Assessment as Learning and Assessment for Learning):

I will be using formative assessment (assessment for learning) throughout this unit, as I will be observing students' responses in class discussion through random selection with popsicle sticks to gauge students' understanding of the water conservation concept. I'll also be asking group questions and using a personal communication method of "thumbs up" or "thumbs down" to assess if the materials should be reviewed further before moving on. I'll be observing student collaboration and communication efforts when working with their small groups to build their rain catchers and to measure the rainfall outcomes.

Summative Assessment (Assessment of Learning):

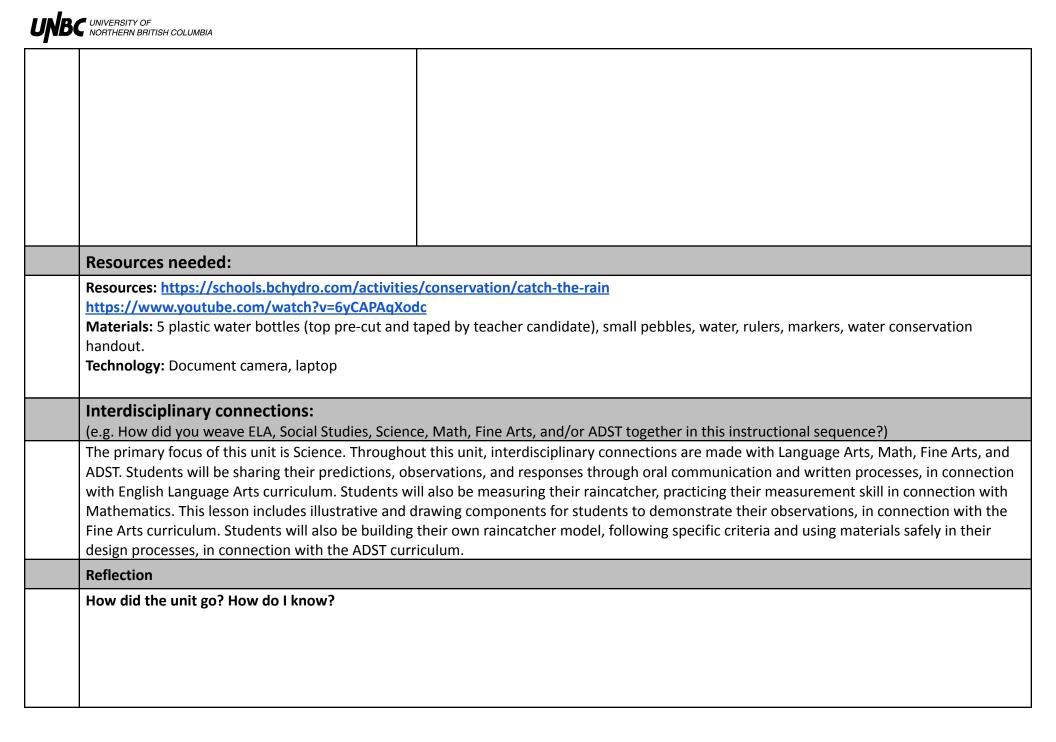




Date/L esson	Learning Intentions	Instructional Activities (brief description here – lesson plans will be used to flesh out each lesson)
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#1	I can demonstrate curiosity and a sense of wonder about water conservation.	 Teacher introduces the learning intention of water conservation in connection with the previous unit on the water cycle, reviewing different water sources, water components in weather. Play "The Power Of Water" video to introduce the lesson and hydroelectricity. Class discussion on the carpet about how we use water in everyday life, brainstorm ideas to create anchor charts as a class.
#2	I can make simple predictions about familiar objects and events, in connection with rainfall and freshwater resources.	 Teacher reviews the discussion on everyday use of water in schools, communities, and at home. Teacher reads a story to class on the carpet about freshwater. Generate questions about how much rain and freshwater resources are generated everyday, and how much water is used every day. Play video "How Can I Save Water" by SciShow Kids. Students complete their predictions in their water conservation booklet about the amount of rainfall/freshwater resources generated in comparison with the amount of water being used.
#3	I can safely manipulate materials to test ideas and predictions about freshwater resources.	 Teacher reviews the anchor chart and the predictions generated in the previous lessons. Divide class into 5 groups (4 circle tables plus the rainbow table). Model the science experiment of building a rain catcher with the purpose to measure how much rainfalls after a period of time. Students create their rain catcher in small groups, using a plastic bottle (top pre-cut by teacher with tape on top to cover sharp edge). Students place small pebbles and water in the bottom, use a marker to measure on the sides. Teacher candidate brings home to catch rain and ensure the rain catchers stay safe.
#4	I can make and record simple measurements using informal or non-standard methods about freshwater resources.	 Teacher returns the rain catchers to their groups. Students measure the side of the bottle in their small groups, recording their responses individually in their water conservation booklet. Class discussion about observations, what students notice, connections with weather patterns. Students record observations independently - students who finish early may colour in their booklet
#5	I can consider some environmental consequences of my actions in connection with water conservation.	 Teacher returns the rain catchers to their groups. Students measure the side of the bottle in their small groups again to observe new findings, recording their responses individually in their water conservation booklet and comparing with previous findings Teacher models different measurements of water to class (ex. what 1 litre looks like) and shows different images/statistics of how much water is used on average when brushing teeth, etc. Class discussion to brainstorm ways we can conserve water every day. Students record responses in their booklet, with illustrations to demonstrate their understanding





Where to next?