



Lesson 14

Every Drop Counts



Learning Standards & Assessment Tools



Time



Resources



Handouts



Letters to Parents

CRD

every drop counts



This summative lesson builds on and reinforces previous learning from a number of subject areas, with an emphasis on:

- **English Language Arts**
- **Science**
- **Social Studies**
- **Career Education**

For a full listing of all the prescribed learning outcomes addressed by this unit, refer to Appendix A.



**60 mins -3 hours,
depending on the
end-of-unit
presentation chosen**



Educator's Kits, including hardcopy lesson plans and support materials, are available for loan through the CRD. For pickup locations, print-friendly materials and multimedia tools see www.crd.bc.ca/teacher or contact the CRD at 250.360.3133.

Lesson 14: Every Drop Counts

Purpose

This summative lesson provides an opportunity for students to reflect on, and take pride in, what they have learned about water and water conservation.

Preparation

1. The majority of the preparation for this summative lesson is in determining what method your class will use to present and celebrate their learning. (see End-of-Unit Activity).
2. Photocopy the following (one/student):
 - **Completion Certificates** – (fill in with students' names and sign by both you and the school principal, if possible)
 - **Student Handout** – Water Portfolio: Self/Peer Assessment
 - **Summative Assessment Tool** – Every Drop Counts
 - **Parent Handout** – Every Drop Counts (or email electronic version)

Procedure

DAY ONE

KWL chart

1. Begin by revisiting the KWL chart one last time, and complete the "Learned" column if not already done. Read this column aloud as a class, and take time for students to appreciate the depth of knowledge they have acquired.
2. Check to see if there are any outstanding questions in the Wonder column. How might they go about answering these questions? Contact the CRD via email or submit a video to www.crd.bc.ca/teacher



Teacher Resources

- ▶ “Every Drop Counts: Summative Assessment”
- ▶ Parent Handout/email: “Every Drop Counts”
- ▶ Open House activities (optional)

Student Resources

- ▶ “Every Drop Counts”
- ▶ “Down the Drain and Back Again”

Lesson Resources

- ▶ KWL chart (started in Lesson 1)
- ▶ Book: “I Can Help Save Water”
- ▶ Book: “E” is for Environment- I Promise”
- ▶ Board or screen
- ▶ Completion certificates

Water Portfolios

Distribute the student handout “Every Drop Counts”. Have students go through their Water Portfolios and attach their Every Drop Counts notes.

Book- E is for Environment- I Promise

1. Read to students, “*I Promise*”
2. Have students create their own promise. What will they use as their reminder?

End-of-unit Activity

1. Advise students of the end-of-unit activity, and facilitate the process as required. Suggestions for activities include:
 - Holding an open house for other classes, parents, and community members (if you choose this option, see the teacher resource, Open House, for more information).
 - Creating a water conservation page on the school website, or adding to an existing website.
 - Writing an email, letter or postcard to a friend, relative or to staff at the CRD sharing what they have learned in this unit and the importance of drinking water conservation and protection (template provided).
 - Creating an advertising campaign using slogans such as “Do your part: every drop counts” or “If each of us saves a little, together we all save a lot”—students can create posters, buttons, flyers etc. made from recycled and recyclable materials and distribute them through the school and at home.
 - Students giving an oral presentation to the class on the most interesting things they learned.
 - Students creating a song, drama, poem, video or dance sequence to represent something they learned about drinking water conservation and protection.
2. Provide time for students to review their Water Portfolios and select the items they are most proud of or that best represent what they have learned about water conservation.



Assessment Opportunity

Conduct a summative assessment conference. For suggested questions, see *Every Drop Counts: Summative Assessment*.

DAY TWO

Following the End-of-Unit Activity.

1. To summarize the concept that every individual has a valuable role to play in water conservation, read aloud the text on pages 24-25 of the book “*I Can Help Save Water*”.

2. Present students with the completion certificates.
3. Distribute or email the parent handout “Every Drop Counts” for students to take home. Suggest that students also take home their completion certificates, as well as any other items from their Water Portfolios that they would like to share with their families.

Extensions and Adaptations

- ▶ You may choose to end the unit with a final viewing of the video, *Down the Drain and Back Again*.
- ▶ EcoStar Awards- submit an application to the Wancouver Island EcoStar Awards for an innovative project or environmental effort.
<http://ecostarawards.com/>



Water Portfolio – Self/Peer Assessment

I found this interesting because...

Name:

Date:

I think I could do a better job of this by...

Name:

Date:

I like this because...

Name:

Date:

This made me think of...

Name:

Date:

I am proud of this because...

Name:

Date:



This surprised me because...

Name:

Date:

Later, I also learned...

Name:

Date:

This reminds me of...

Name:

Date:

The most important thing I learned about drinking water is...

Name:

Date:

This shows that I have learned...

Name:

Date:



Summative Assessment - Every Drop Counts

Name: _____ Date: _____

Suggested Conference Questions:

- 1. What do you think is the most important thing you learned in this unit?**
- 2. What is the most surprising or interesting thing you learned in this unit?**
- 3. Do you think it's important to conserve and protect our drinking water?
Why or why not?**
- 4. True or false: All living things need water to survive. How do you know?**
- 5. What are the three states of water?
(Hint: it has something to do with boiling, melting, and freezing.)**
- 6. What are your favourite things to do with water?**
- 7. Do you think we are lucky in Canada when it comes to drinking water?
Why or why not?**
- 8. Which items from your Water Portfolio are you most proud of?
Tell me about them.**
- 9. How do these portfolio items show me what you have learned about water?**
- 10. Is there anything else you would like to learn about our drinking water, water conservation and protection? If so, what?**



Open House

One option for an end-of-unit activity is to hold an open house, inviting other classes, as well as parents and community members if desired.

Obviously, such an event requires significant planning and organization, but can be a valuable way to celebrate students' learning and share the experience with the wider school community.

If you decide to hold an open house, consider including any of the following components:

- ▶ a viewing of the video, *Down the Drain and Back Again*
- ▶ student performance of the song, "Drip, Drip, Drop" and/or the "Water Cycle Song"
- ▶ student plays/ puppet show about conserving and protecting water and/or the water cycle
- ▶ displays of student artwork created during the lessons
- ▶ student demonstrations of water experiments they have done
- ▶ invite attendees to participate in a drinking water conservation review game (like the water relay, KooshBall questions, jeopardy etc.)
- ▶ display of water-related resources (e.g., CRD materials; books and videos listed in Appendix D)
- ▶ displays of water-saving and protecting tools and strategies (e.g., water-efficient toilet, low-flow shower head, rain barrel, water-efficient plants, backflow preventer – images available)
- ▶ display about the school and community's watershed
- ▶ presentation of completion certificates to students

Share your end-of-unit activity with us and other school. Find out how at www.crd.bc.ca/teacher



Every Drop Counts

Dear Parent,

Today was the last lesson in our water unit, *Every Drop Counts*. But the learning doesn't end here! To help your child build on what she or he has learned, you and your family may want to:

- go on family field trips to a creek, river, lake, pond, marsh, or beach near your home
- visit water sites when you are on vacation.
- collect articles about water and water conservation or check out weekly postings here: **www.crd.bc.ca/parent**
- continue to look for new ways to conserve and protect drinking water as a family

For more information on water and drinking water conservation and protection, you may also wish to check

out these resources at your public library, your child's school library, or on the Internet:

Books

Resource	Description
Allen, Pamela. "Who Sank the Boat?" Penguin, 1982.	This storybook about flotation uses very simple language and is heavily illustrated. 30 pages.
Allen, Pamela. "Mr. Archimedes' Bath" Penguin, 1986.	This storybook about water displacement uses very simple language and is heavily illustrated.
Ardley, Neil. "The Science Book of Water", Doubleday Canada, 1991	Water related experiments and activities are explained through clear photographs and concise text.
Base, Graeham. "The Water Hole", Doubleday Canada, 2001.	This is a beautifully illustrated picture book about the need that animals around the world have for water, what happens when there are water shortages and drought, and the renewing properties of rain. Pages are interestingly perforated so that children can see the water diminishing with every turn of the page. Simple vocabulary. 20 pages.
Bullard, Lisa. "Watch Over Our Water", Learner Publishing Group, 2012.	This full colour illustrated storybook is about who uses water, why it is important to protect and conserve it, and how.
Cast, C. Vance. "Where Does Water Come From?" Barron's Educational Series Inc., Hauppauge, NY, 1992.	An illustrated story book that explains in simple language the water cycle and the ways water is treated to ensure safety. It includes some simple experiments and a glossary. 40 pages.
Cameron, Anne. "Raven Returns the Water", Harbour Publishing Co. Ltd., 1987	Tells the story of how Raven tricks a frog who does not believe in sharing to give back the water of the Earth. A lesson about sharing and effects of using all the world's water. Black and white illustrations.



Cherry, Lynne. "A River Ran Wild", Harcourt, Brace & Co, 1992.	An illustrated story book about the natural historic beauty of the Nashua River in New England, which was subsequently polluted and then reclaimed. 28 pages.
Cole, Joanna. "Wet All Over—A Book about the Water Cycle", Scholastic—"Magic School Bus" Series. 1996.	Heavily illustrated fiction book about children being taken on a ride through the water cycle. 30 pages.
Corlett, Ian James. "E is for Environment", Atria, 2011	These read-aloud short stories touch on many environmental concerns from waste to water, providing food for thought followed by transform questions.
Joe, Donna. "Salmon Boy: Legend of the Sechelt People", Nightwood Editions, 1999.	A boy finds himself in the country of the salmon people. He observes and lives among them learning life skills and about their lifecycle.
Locker, Thomas. "Water Dance", Voyager Books, New York, 1997.	Illustrated free-verse poetry about water in its many forms.
McKinney, Babara Shaw. "A Drop Around the World", Dawn Publications, 1998.	Follow a water drop around the water cycle. Full colour. Provides a sense of time and seasons.
Morgan, Sally. "Water for All Earth Watch", Danbury CT, 200.	This book includes sections on water for life, the water cycle, salt water, rivers and reservoirs, clean and polluted water, water and farming, rain, water shortages, and what humans can do. Reading level is too high for primary students but it is well illustrated and could be read aloud. 32 pages.
Murphy, Bryan. "Experiment with Water", Two-Can Publishing, London (Published in the USA and Canada by Two-Can Publishing LLC, Princeton, NJ). 2001.	Illustrated book with basic information about water in story format, accompanied by experiments suitable for 4-9 year olds. It includes a glossary.
Nunn, Lori. "Flo & Eddy's Water Adventure", Rocky Mountain Books, 2011.	A poetic story about two pelicans that follow the water cycle on their migration route. Water facts also provided.
Resmer, Marie. "Inspector McTree Visits his Native Friends", Rhyme for Reason, Island View, NB, 1999.	This illustrated story book describes humans' relationship with Mother Earth and the need to live in harmony with the Earth, from an Aboriginal perspective.
Simpson, Caroll. "The First Beaver", Heritage House Publishing Company Ltd., 2008.	This full colour native art illustrated book shows, among others, how physical changes to an environment, like a body of water, affect others.
Slade, Suzanne. "A Raindrop's Journey", Picture Window Books, 2011	Illustrated story follows a water drop around the water cycle. Story supported by water facts.
Stewart, H.E. "The Little Hill", Tudor House Press, 2012.	A story written and illustrated by a local Victorian artist about how development changes the landscape and why we must be environmental stewards.

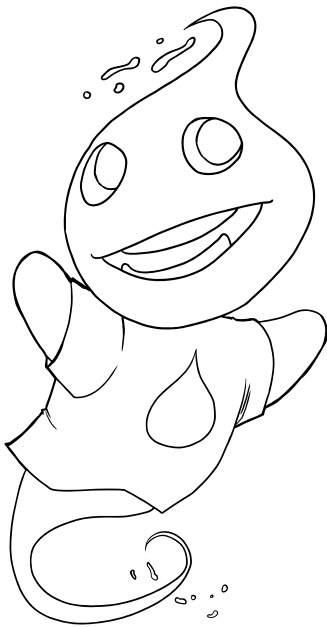


Strasshoffer, Craig. "Water Cycle", Science Court Investigations, 1997.	In cartoon format, this book uses a "courtroom" to determine scientific facts about water. "Evidence" graphics in fold-out format are included. Best for grade 1 or younger.
Parr, Todd. "The Earth Book", Hachett Book Group Inc., 2010.	
Strauss, Rochelle. "One Well: The Story of Water on Earth", Rosemary Woods, 2007.	"Imagine for a moment that all the water on Earth came from just one well. This isn't as strange as it sounds. All water in Earth is connected so there really is just one source..."
Wilson, Janet. "Our Earth: How Kids are Saving the Planet", Second Story Press, 2010	Stories of young people from around the world making a difference for the future of our planet.

Organizations and Web Sites

Resource	Description
CRD www.crd.bc.ca 250.474.9600	The Capital Regional District is committed to sustaining the health and lifestyles of the residents of Greater Victoria by providing safe, clean drinking water. The website includes information about our drinking water : <ul style="list-style-type: none"> • Where it comes from • The quality and quantity we have • How to protect and conserve it
Environment Canada www.ec.gc.ca/eau-water	Government of Canada. Extensive information on a variety of topics including: water quality, water quantity, water pollution, water efficiency, water science and technology.
World Fisheries Trust www.worldfish.org 250.380.7585	World Fisheries Trust Environmental Education and Awareness Program includes Seaquaria in schools, Gorge Waterway Nature House and Community watershed models.

CONGRATULATIONS!



Thanks for being a water steward, conserving and protecting our drinking water because you know that Every Drop Counts.

Date: _____

Signed: _____