



Lesson 2

Down the Drain and Back Again



Learning Standards & Assessment



Time



Resources



Activities



Handouts



Video

CRD

every drop counts



Science

Big Ideas

- ▶ Materials can be changed through physical and chemical processes.
- ▶ Water is essential to all living things, and it cycles through the environment.

Content

- ▶ Water sources including local watersheds
- ▶ Water conservation
- ▶ The water cycle

English Language Arts

Big Ideas

- ▶ Stories and other texts connect us to ourselves, our families, and our communities.

Content

- ▶ Strategies and processes
 - oral language strategies



45-60 minutes



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 2:

Down the Drain and Back Again

Purpose

In this lesson, students are introduced to the unit video: *Down the Drain and Back Again*. Students engage in a number of prediction and discussion activities about the content of the video, and have opportunities to reflect on what they have learned.

Preparation

- ▶ Preview the *Down the Drain and Back Again* video
- ▶ To review the video script (Appendix C), which contains approximate time indices for each scene and suggested discussion topics.
- ▶ Photocopy student activity sheet: *Down the Drain and Back Again* (1/student)
- ▶ Photocopy Vocabulary Graphic Organizer (5/student)
- ▶ Assessment tool "What Did I Learn About Water?"

Procedure



Warm-Up Activity

1. Tell students to close their eyes, listen to the sound clip and to imagine what is happening. (Use a sound clip of water going down the drain)
2. Have students turn and talk to a partner and then share with the class.
3. Direct discussion to where is the water going? Answer: Down the drain.

Transition: Tell students that the title of the video they are about to watch is *Down the Drain and Back Again*. Write the title on the board. Ask students if anyone knows what a drain is or what one looks like.

Teacher Resources

- ▶ Assessment Tool: *Down the Drain and Back Again*

Student Resources

- ▶ Handout: *Word Maps* (see Lesson 3)
- ▶ Handout: *Down the Drain and Back Again*

Lesson Resources

- ▶ Video: *Down the Drain and Back Again* (15 mins)
- ▶ Computer and projector or TV and DVD player
- ▶ KWL chart (from Lesson 1)
- ▶ Board or screen
- ▶ Crayons, pencil crayons, etc.



Vocabulary and Word Maps

1. Project a word map and complete as a class to define drain- pipes that remove dirty water (wastewater) from our homes, buildings, roads and sidewalks.

Background information:

- *Sanitary sewer drains- start inside our homes and buildings.*
- *Stormwater drains- start outside collecting rainwater that flows over our roads, roofs, sidewalks and other surfaces.*

2. On the board, write the vocabulary listed below or choose from the glossary in APPENDIX B. Explain that these words will be in the video. Review and define as needed. Have students create word maps for each (see Lesson 3 handouts). Note: These can be made into a water words book at the end of the unit.
 - Conserve - the action of stopping something from being wasted- like water.
 - Evaporate - the action of changing from liquid water into water vapour when heated.
 - Raindrop - the liquid form of water that falls from clouds.
 - Creek- a stream of water that flows into a river or lake.



Predictions Previewing Activity

1. Post images of Dana, Dylan and Sprinkle. Explain that these are characters from the video.
2. Review the clues: video title, vocabulary and characters.
3. Distribute the *Down the Drain and Back Again* student handout.
4. Review prediction strategies and explain that students are to complete the prediction section only.



Video – Down the Drain and Back Again

1. Screen Video- Sprinkle teaches Dylan and Dana how to conserve water by turning them into water drops. They go down the drain and flow out into the ocean. There, the sun heats them up and they evaporate into the clouds. They then transform into raindrops and fall from the sky in to a creek that flows into the Sooke Lake Reservoir, where our drinking water is stored.
2. Have students review their predictions and mark which were right and wrong, and review answers to their questions.
3. Ask all students to stand. Have standing students share briefly with the class.
 - Sit if your prediction came true.
 - Everyone stand again. Sit if a prediction did not come true.
 - Everyone stand again. Sit if your questions were not answered.
 - Everyone stand again. Sit if all your questions were answered.

4. Know-Wonder-Learn (KWL) chart
 - Add unanswered questions to the KWL chart.
5. Complete remainder of handout - What I learned.
 - Revisit the KWL chart, and ask students to suggest additions and modifications based on what they learned from the video.
 - Have students add their completed sheets to their Water Portfolios

Assessment Opportunity

Collect students' completed *Down the Drain and Back Again* sheets, and invite them to talk about their responses in a conference approach, using questions and prompts such as:

- ▶ What did you learn today about water?
- ▶ How does your work (predictions, answers and drawing) show what you have learned about water?
- ▶ What do you want to learn more about?

Curricular Competencies

Look for evidence that students are able to:

English Language Arts

- ▶ Comprehend and connect (reading, listening, viewing)
 - Use sources of information and prior knowledge to make meaning
 - Use developmentally appropriate reading, listening and viewing strategies to make meaning
 - Engage actively as listeners, viewers, and readers, as appropriate, to develop understanding of self, identity, and community
- ▶ Create and communicate (writing, speaking, representing)
 - Exchange ideas and perspectives to build shared understanding

Science

- ▶ Questioning and predicting
 - Observe objects and events in familiar context
 - Make simple predictions about familiar objects and events
- ▶ Processing and Analyzing
 - Compare observations with predictions through discussion
 - Identify simple patterns and connections
- ▶ Evaluating
 - Compare observations with those of others
 - Consider some environmental consequences of their actions
- ▶ Communicating
 - Communicate observations and ideas using oral or written language, drawing, or role-play
 - Express and reflect on personal experiences of place



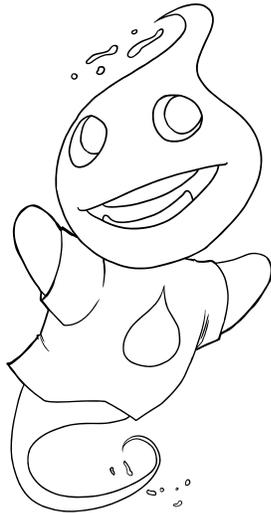
Extensions and Adaptations

- ▶ Word Map templates available for different levels- pictorial only, mixed text and images, and added detail for further challenge. Choose the map that best suits students.
- ▶ To extend the prediction activity, pause the video in a few places and challenge students to predict what will happen next. Provide opportunities for them to explain their reasoning. NOTE: Suggested opportunities for predictions, discussions and background information are identified in the video script in Appendix C.



Curricular Integration

Social Studies: Use this lesson as the basis for discussing relationships between people and the environment; rights and responsibilities of individuals; roles and responsibilities of regional governments etc.



FACTOID: *Once evaporated,
a water molecule spends
about 10 days in the air*



Down the Drain and Back Again

Name: _____ Date: _____

My Predictions

Draw and/or write your ideas below.

BEFORE <ul style="list-style-type: none">• <i>I think this video will be about...</i>• <i>I wonder...</i>	AFTER <ul style="list-style-type: none">• <i>My predictions were right ✓</i>• <i>My predictions were wrong ✗.</i>



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What I Learned About Water

Use the lines to write three things you learned about water

1. _____

2. _____



3. _____

Draw what you learned about water.

Down the Drain and Back Again

Name: _____ Date: _____

		Emerging	Developing	Proficient	Extending
English Language Arts	Use sources of information and prior knowledge to make meaning				
	Use listening and viewing strategies (including making predictions, connections, inferences etc) to make meaning				
	Exchange ideas and perspectives to build shared understanding				