

Every Drop Counts
Episode 1
“The Water Wizard”
Student Worksheet

1. Names the four grade eight students in the video who have decided to enter the song writing contest.
2. Who is sponsoring the song writing contest?
3. How many planets in our solar system have abundant liquid water?
4. How much of the Earth is covered by water?
5. Of this water, how much is salt water and how much is fresh?
6. Having enough clean water has become a global concern. Why?
7. How much of the world’s fresh water does Canada possess?
8. Given that Canada has so much of the world’s water supply and a relatively small population, why do we have concerns about water scarcity in parts of Alberta?
9. Without a low-flow showerhead, how much water can it take to have a ten-minute shower?
10. How much water does it take to wash a load of clothes?
11. How much water, on average, does it take to grow food for one person for one year?

12. How much water does it take to refine one litre of gasoline?

13. How much does a half-litre bottle of water cost compared to a litre of gasoline?

14. How much water does it take each year per person to allow Canadians to live as we do?

15. Is there enough water in the world for every person on the planet to use as much water per person as we do in Canada?

16. Can you calculate how much water you use in your household every year?

17. How much water could you save if everyone in your family decided to conserve water?

18. Did you notice that Uncle Bob drives a hybrid car? How can lowering automobile emissions help conserve water in Alberta?

19. For double points, can you write four lines that might become the foundation for the lyrics of a song about water?

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Episode 2
“Rhymes With Schmutter”
Student Worksheet

1. Besides “schmutter” how many words can you come up with that rhyme with water?

2. Can you name four forms in which water exists?

3. Of all the water on Earth, what percentage is available for us to drink?

4. What proportion of the world’s fresh water exists in a frozen state?

5. What is the cryosphere?

6. What portion of the Earth’s surface does the cryosphere cover?

7. What is an icefield?

8. What is the Columbia Icefield?

9. How big is the Columbia Icefield?

10. What three major continental watersheds have their origins in the Columbia Icefield and into which oceans do they flow?

11. What is a glacier?

12. Approximately how many glaciers are there in Alberta?

13. In what river valley do you live?

14. Is there a glacier at the headwaters of the river system in which you live?

15. How much have Alberta's glaciers shrunk since 1850?

16. How much do melting glaciers contribute to the flow of Alberta's rivers in an average year?

17. Even though glaciers contribute only a small amount on an annual basis to a river's flow their contribution is important, especially at certain times of the year. Why?

18. If you live on a river that originates at a glacier or icefield, how would you find out how much water was contributed by glaciers at any given time of the year to the flow of the river through your community or region?

19. For double points, can you write four lines about the cryosphere that might help Jolson and Ben with the lyrics they need to write for the song they want to enter into the song-writing contest?

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Episode 3
“Shaggy Tree Hollow”
Student Worksheet

1. What is the water cycle?

2. How much precipitation do you get where you live?

3. Measured in percentages, how much of that precipitation falls as rain and how much as snow?

4. What is a watershed?

5. In what watershed do you live?

6. How many different major watersheds are there in Alberta?

7. Approximately how much of Alberta's water flows north?

8. Approximately how much of Alberta's water flows south?

9. Where are the headwaters of your watershed?

10. How many people live in your watershed?

11. What is an aquifer?

12. Does your drinking water come from a river or a lake or is it pumped from an aquifer?

13. Who uses the water in your river before it comes to you?

14. What measurement exists for you to determine if the water in your river is being managed properly?

15. What qualities does a healthy aquatic ecosystem possess?

16. Can you name at least three invertebrates and two vertebrates that can be found in healthy aquatic ecosystems in Alberta?

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Episode 4
“The Final Lines”
Student Worksheet

1. Besides being used for drinking, to what other uses do we put water in Alberta?
2. What are the major water-using industries in Alberta?
3. How important is agriculture to the economy of Alberta?
4. Do you think Canadians take a ready supply of high quality food for granted? If you do, then what has this got to do with water?
5. What does semi-arid mean?
6. What part of the Province of Alberta is considered “semi-arid”?
7. What is irrigation?
8. What was southern Alberta like before irrigated agriculture was introduced a century ago?
9. What is a storage reservoir and why do they matter in southern Alberta.

10. What is an irrigation pivot?

11. What is dammer dyking and how does it help farmers use less water?

12. What kind of crops are grown in Southern Alberta?

13. Why is it important for irrigators to become more efficient at using the water at their disposal for growing food crops?

14. Is water conservation important to the future of Alberta? If so, why?

15. How can Grade Eight students make a difference now in terms of water conservation where you live?

16. What are the first four lines of the prize-winning song Jolson, Ben, Mercedes and Jessie perform for the students of their school?

17. What are you going to do to help make sure there is enough water for everyone in Alberta in the future?