

How Much Water Do You Use?



Specific Learning Outcomes

2-4-10: Describe different uses of water by humans.

2-4-13: Recognize that clean water is an increasingly scarce resource in many parts of the world, and describe consequences of a shortage of clean water.

2-4-14: Record personal use of water, and identify ways in which they can reduce water usage.

General Learning Outcomes

2-0-4e: Respond to the ideas and actions of others in building their own understandings.

2-0-4g: Verbalize questions, ideas, and intentions during classroom activities.

2-0-7a: Purpose an answer to the initial question based on their observations.

2-0-8a: Recognize that learning can come from careful observation and investigation.

Vocabulary

wetland, water, record, clean, use, conserve

Summary

Students continue their exploration of wetlands by estimating and recording their daily water use, learning about the importance of water conservation and the role that wetlands play.

Materials

- *Decide whether to include a mathematics component to this activity (if so, use activity sheets which do not include numbers so students can count on their own) - otherwise use activity sheets which have numbers*
- *Print activity sheets (3 pages each **OR** 2 pages double-sided per student)*
- *Colouring utensils required*
- *Project or print accompanying pages for explanation purposes*
- *One container that holds 1 litre of water (resembling a glass if possible), one container that holds 10 litres of water (resembling a bucket if possible)*

Procedure

Warm Up

Begin by reminding students about your visit to Oak Hammock Marsh, briefly reviewing the day's activities. Remind students of the word 'wetland' and ask them what they think it means now that they visited a wetland. Have students describe what makes a wetland i.e. moist- soil plants, shallow (2 metres or less), slow-moving water.

Introduce the activity by stating that wetlands are one example of a natural place on earth which holds and cleans water. Unfortunately, water can be easily wasted, and natural places that hold and clean water can be destroyed. We have a finite amount of water on our planet and it is very important that we learn about places like wetlands so we can protect and care for water and all who depend on it.

The Activity

Today the students will learn about how much water they use daily, and what they can do to reduce their water use so they can better share water with the rest of the world. Have students identify some daily activities which require using water, some places we use water, and a few different uses for water in different seasons (such as an ice rink, swimming pool, watering the garden, bird bath etc.).

After this brief brainstorm, bring out your containers. Explain to students that the first container holds one litre of water and the second holds ten litres of water, and that these containers will help us imagine how much water we use. Continue by explaining we will each try to guess how many “glasses” (1 litre) and “buckets” (10 litres) of water we use.

Hand out activity sheets. Explain that the class will go through the questions together, each person guessing how much water they use per question, recording their guess on the activity sheet. Encourage students to look at the containers to help them decide.

After everyone has written down their guesses, have students colour the amount of “glasses” and “buckets” they guessed on their activity sheet, using a different colour for each answer (**see example**).

Project or show printed copy of the Average Use of Water pages (three in total) which show the average amount of water used per activity listed on activity sheet. Have students compare their answers with the average answers.

Extension: Ask students if they would change their answers based on the average numbers (such as one toilet flush will use 19 to 27 litres, so students may want to add or remove some of their “glasses” of water, depending if they over or under estimated).

Optional: To emphasize the average amount of water used, compare how many bathtubs full of water everyone uses. The average bathtub holds 300 litres (80 gallons). On average, everyone uses one bathtub of water per day.

Extension: Discuss the ways in which we waste water. Then discuss how the class can reduce their water use, writing the students’ ideas on the board. If desired, have students sign the board afterwards as a promise to do what they can to reduce how much water they use.

Wrap Up

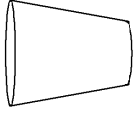
Conclude by reiterating that we only have so much water to share between all living things. It is therefore important that we are aware how much water we use, so we can make sure we only use what we really need. Learning about places like wetlands, where water is cleaned, held, and released, also helps us value and take care of these important natural places.



Name: _____

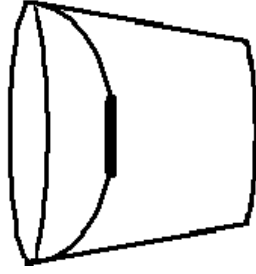
How Much Water Do You Use in One Day?

Instructions: Read the question, then answer each question with your best guess. Colour the amount of glasses or buckets you guessed for each answer using a different colour.



1 Glass = 1 Litre of Water (1000 millilitres)

1. How many glasses of water do you think you **drink** per day? _____
2. How many glasses of water do you use while **brushing your teeth** with the water running? _____
3. How many glasses of water do you use when you **flush the toilet**? _____
4. How many glasses of water do you use when you **wash your hands**? _____



1 Bucket = 10 Litres of Water (10 000 millilitres)

5. How many buckets of water do you think you use for a **bath**? _____
6. If you have a **dishwasher** at home, how many buckets of water do you use for one wash cycle? _____
7. How many buckets of water do you use when you **wash dishes by hand**? _____

Name: _____

How Many Glasses Do You Use in One Day?

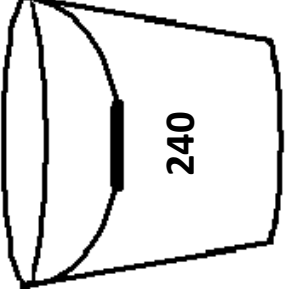
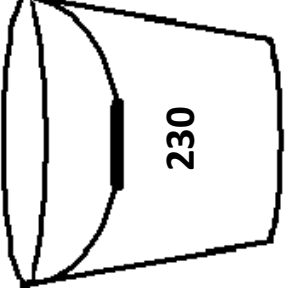
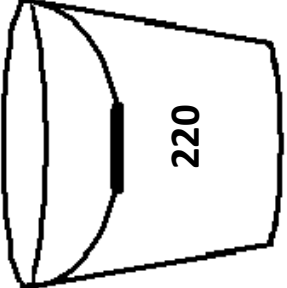
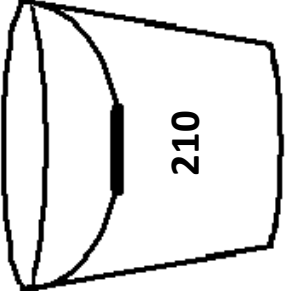
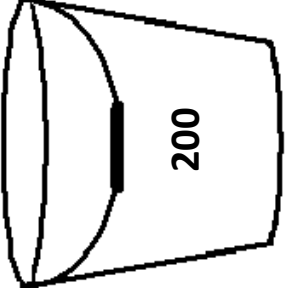
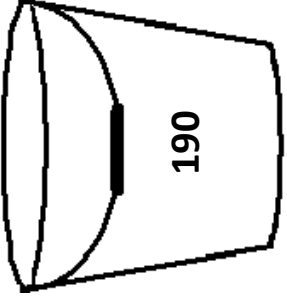
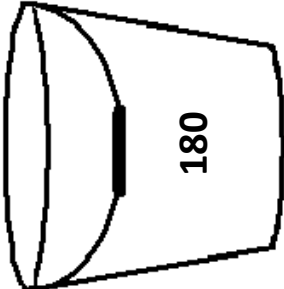
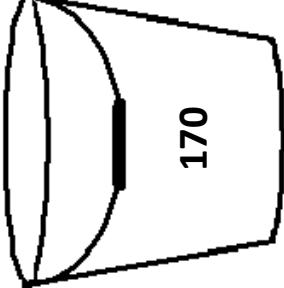
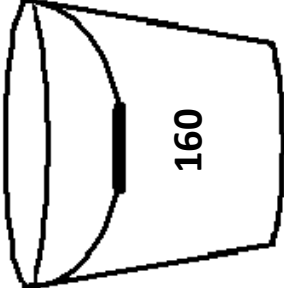
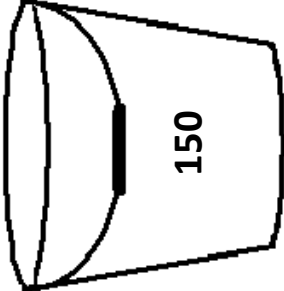
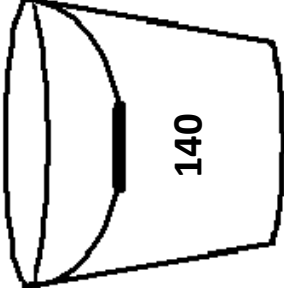
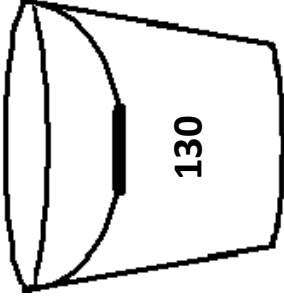
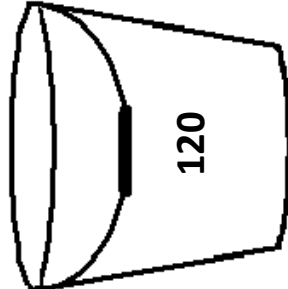
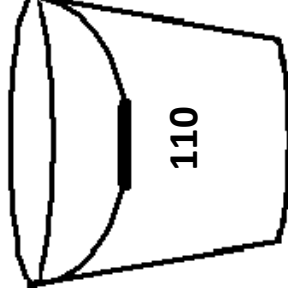
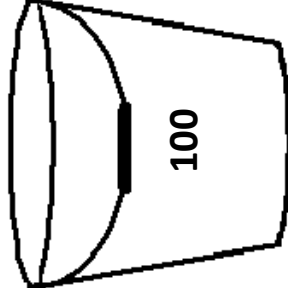
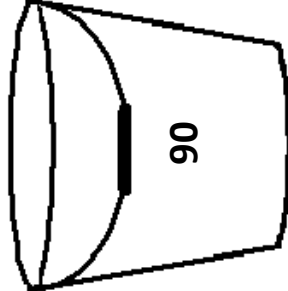
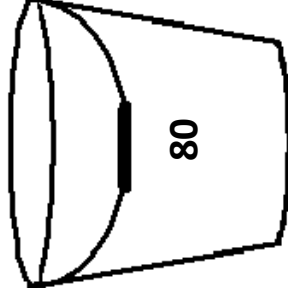
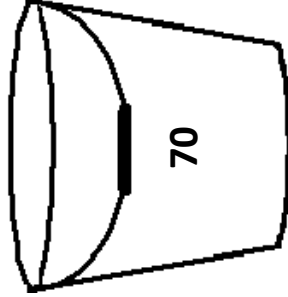
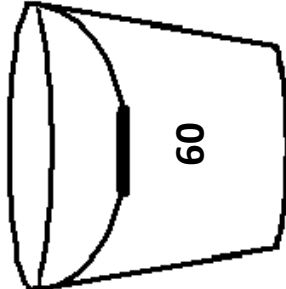
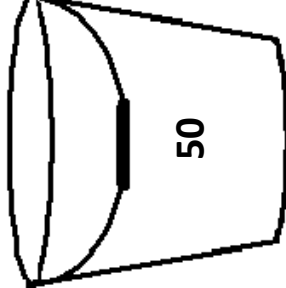
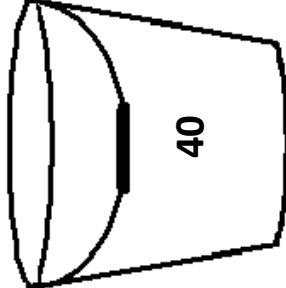
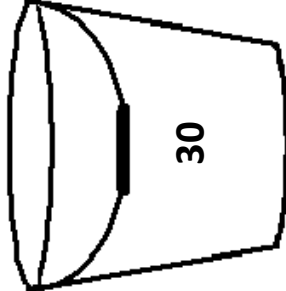
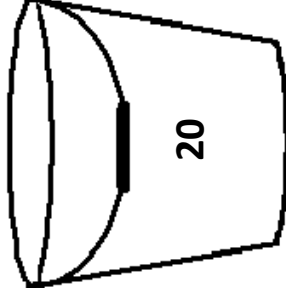
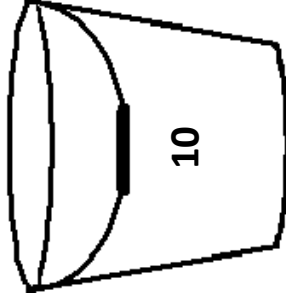
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11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50



OAK HAMMOCK MARSH
INTERPRETIVE CENTRE

Name: _____

How Many Buckets Do You Use in One Day?



Conserving
Canada's
Wetlands

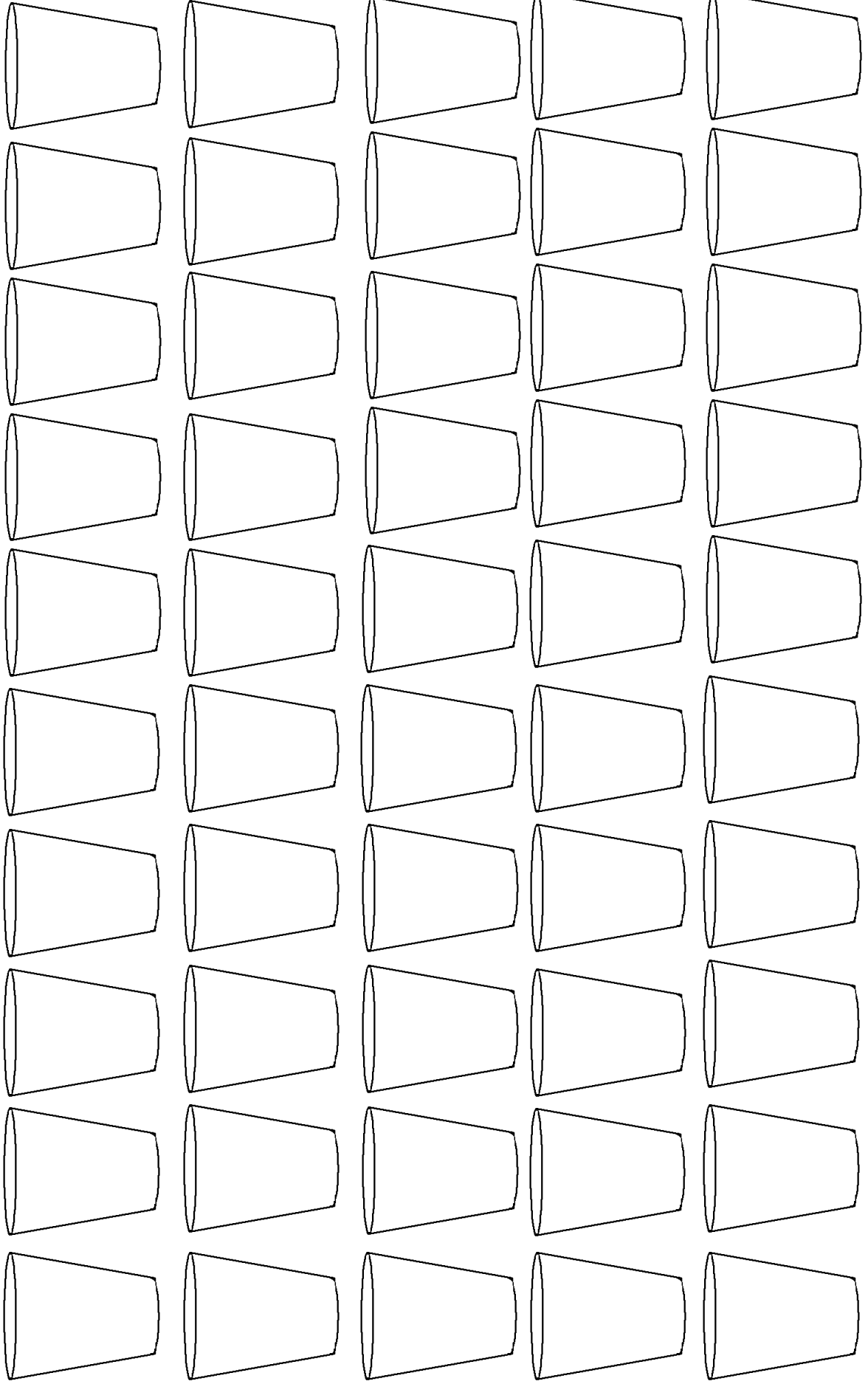
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OAK HAMMOCK MARSH
INTERPRETIVE CENTRE

Name: _____

How Many Glasses Do You Use in One Day?



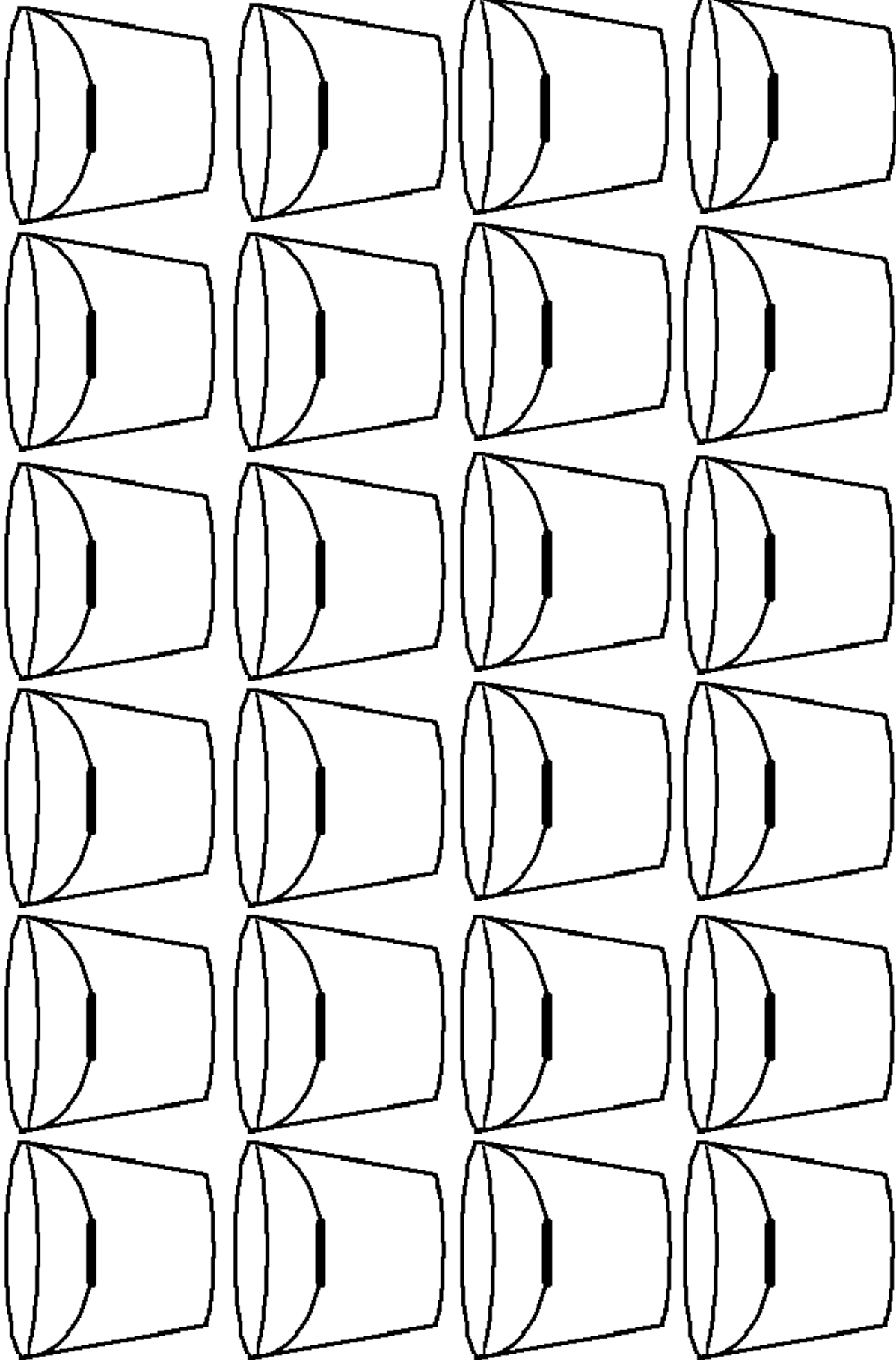
Conserving
Canada's
Wetlands

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Name: _____

How Many Buckets Do You Use in One Day?

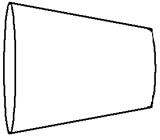




Name: Example

How Much Water Do You Use in One Day?

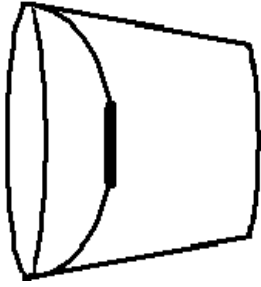
Instructions: Read the question, then answer each question with your best guess. Colour the amount of glasses or buckets you guessed for each answer using a different colour.



1 Glass

= 1 Litre of Water (1000 millilitres)

1. How many glasses of water do you think you **drink** per day? 3
2. How many glasses of water do you use while **brushing your teeth** with the water running? 1/2
3. How many glasses of water do you use when you **flush the toilet**? 6
4. How many glasses of water do you use when you **wash your hands**? 2



1 Bucket

= 10 Litres of Water (10 000 millilitres)

5. How many buckets of water do you think you use for a **bath**? 10
6. If you have a **dishwasher** at home, how many buckets of water do you use for one wash cycle? 5
7. How many buckets of water do you use when you **wash dishes by hand**? 3






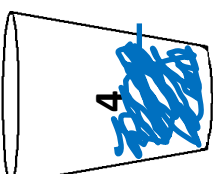





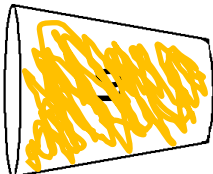
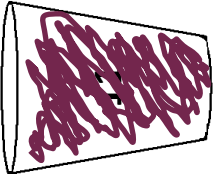
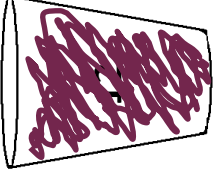
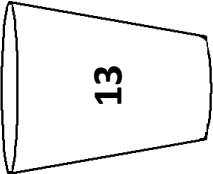
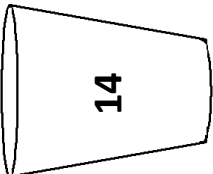
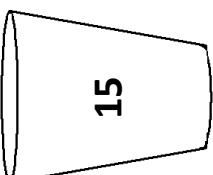
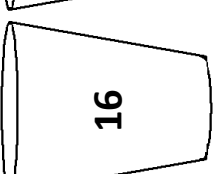
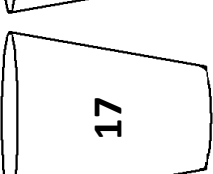
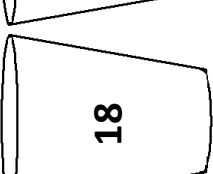
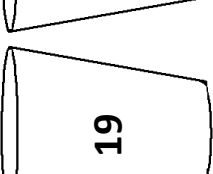
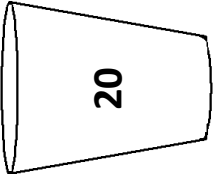


OAK HAMMOCK MARSH
INTERPRETIVE CENTRE

Example

Name: _____

How Many Glasses Do You Use in One Day?

									
									
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50



Conserving
Canada's
Wetlands

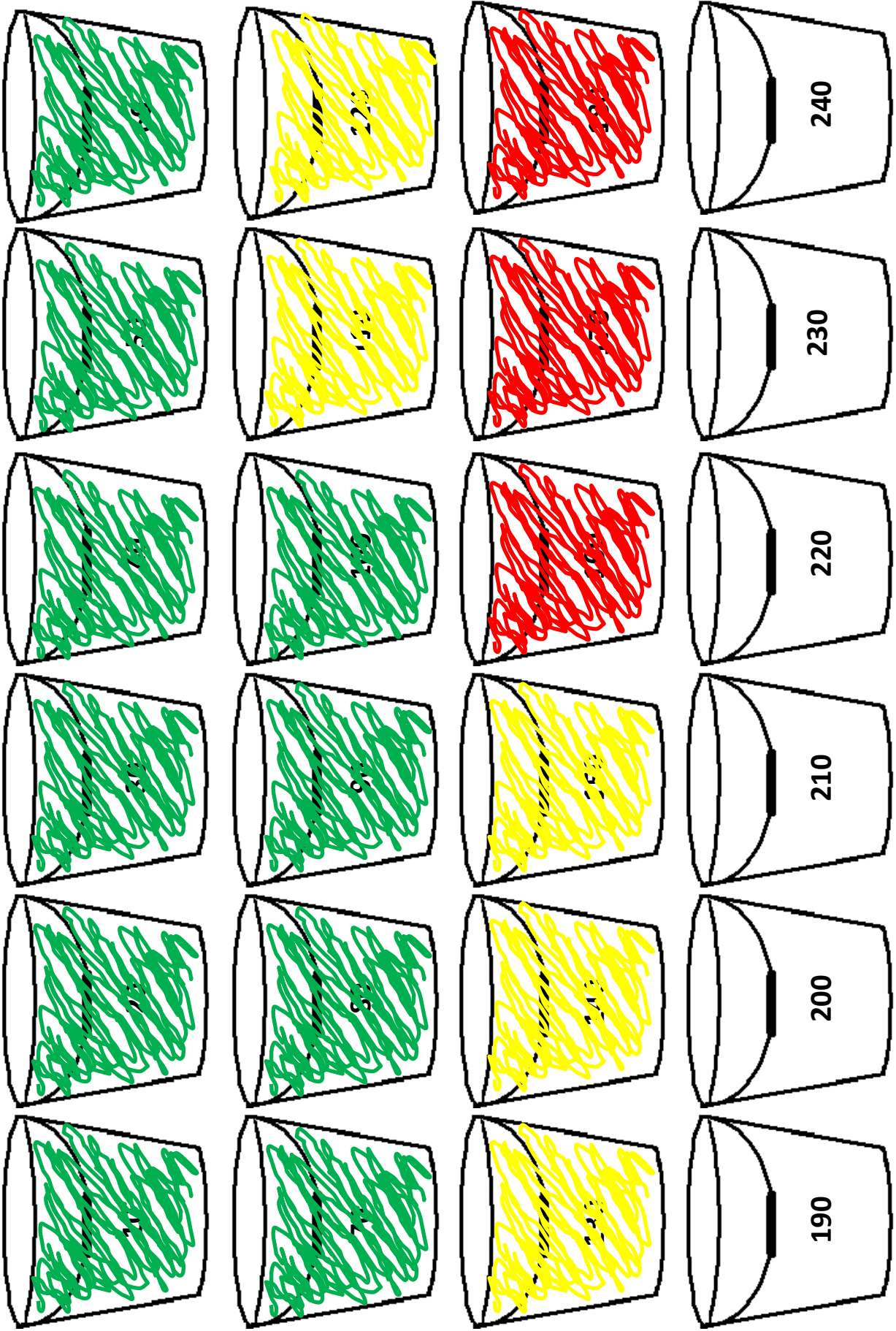
Manitoba



Example

Name: _____

How Many Buckets Do You Use in One Day?

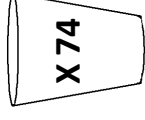


How Much Water Do You Use in One Day?

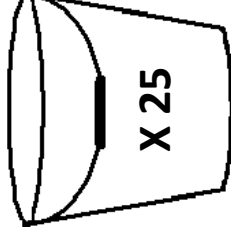
- Teacher's Key -

On average...

1. We drink about **6 to 12 litres (glasses)** a day.
2. We use **23 litres (glasses)** of water while we brush our teeth with the water running for two minutes.
3. One toilet flush equals to **19 to 27 litres (glasses)** of water.
4. Washing our hands with the water running will equal to **12 litres (glasses)** of water each time.
5. A bath will use **114 litres (11.4 buckets)** of water.
6. One dishwasher cycle will use **46 to 57 litres (4.6 to 5.7 buckets)** of water.
7. Washing dishes by hand will use **76 litres (7.6 buckets)** of water.



= 60 to 74 litres



= 236 to 247 litres

Ideas to help reduce your water use:

- Take short showers
- Doing a full load in the dishwasher
- Put a nozzle on your hose when your washing the car or watering the garden
- Turning off the facet when you're brushing your teeth
- Minimize the loads of laundry you do, and only do full loads
- Sweeping the dirt off the driveway instead of using a hose
- Tell your parent/guardian when you find a leaky facet so it can be fixed as soon as possible

Source: *Conserve Water*, a publication produced by the U.S. Bureau of Reclamation, The Watercourse, and KIDS-Kids in Discovery Series.

Average Use of Water



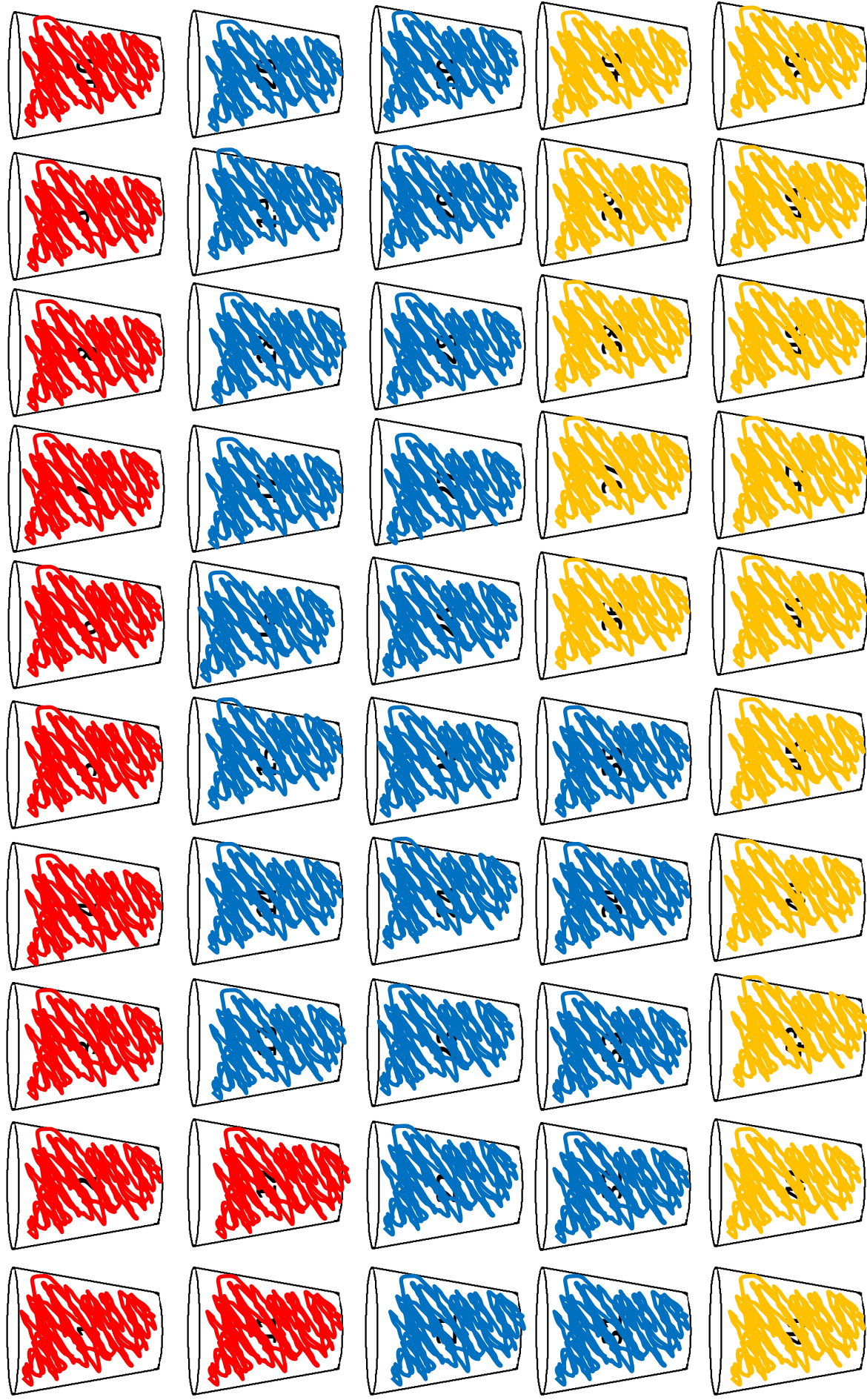
Drinking Water = Up to 12 Litres (glasses)



Brushing Teeth with Water Running = 23 Litres (glasses)



One Toilet Flush = Up to 27 Litres (glasses)



Average Use of Water Continued...



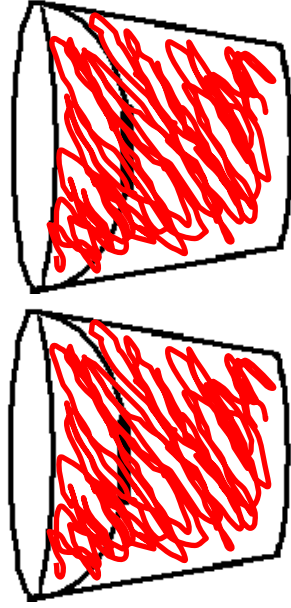
One Toilet Flush = Up to 27 Litres (glasses)



Washing Hands with the Water Running = 12 Litres (glasses)



74 Glasses = 74 Litres



Washing dishes by hand = 76 Litres (7.6 buckets)



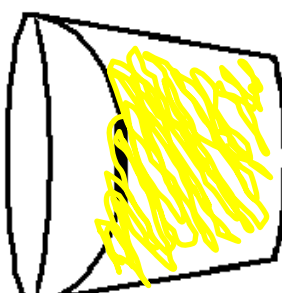
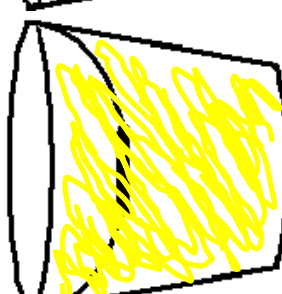
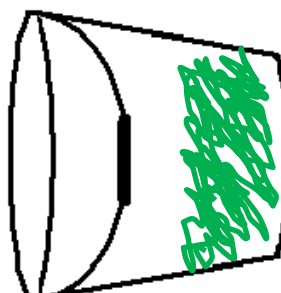
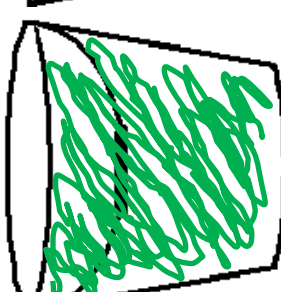
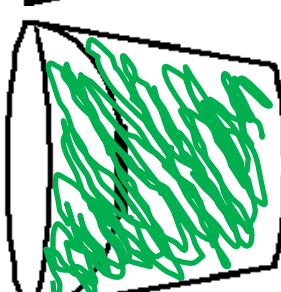
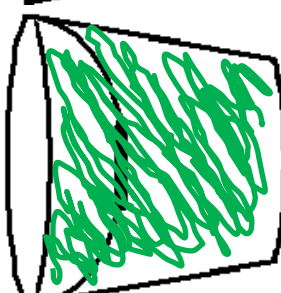
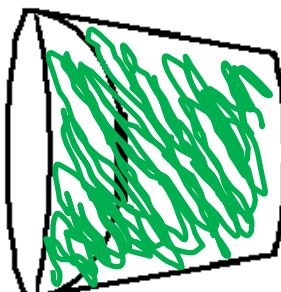
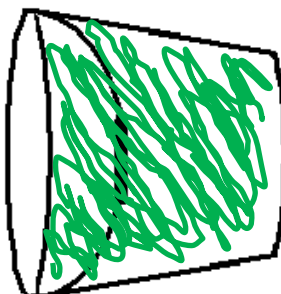
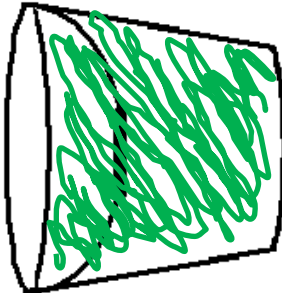
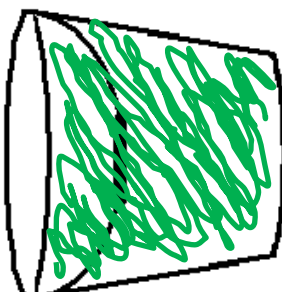
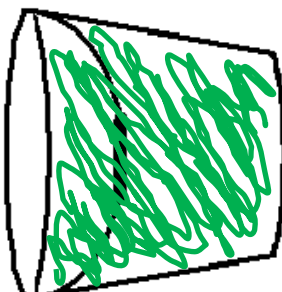
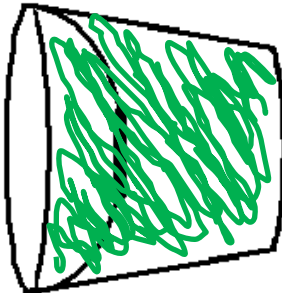
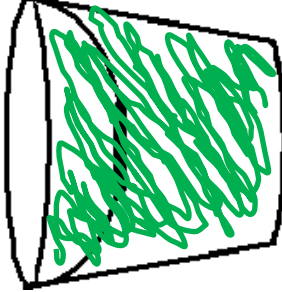
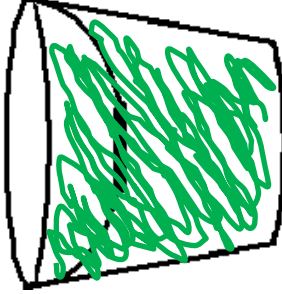
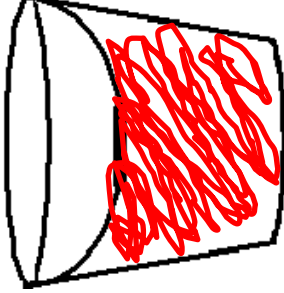
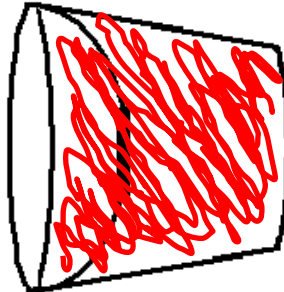
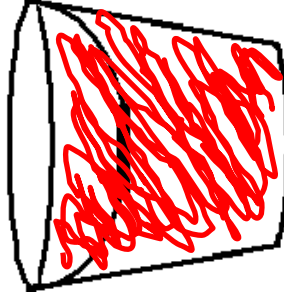
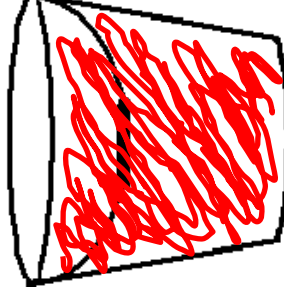
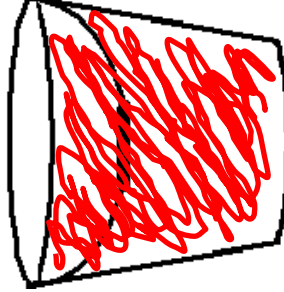
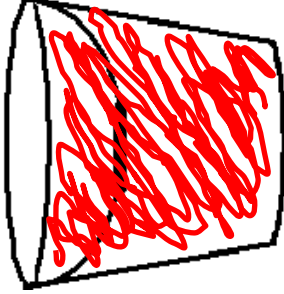
OAK HAMMOCK MARSH
INTERPRETIVE CENTRE

Average Use of Water Continued...

nd = 76 Litres (7.6 buckets)

One Bath = 114 Litres (11.4 buckets)

One Dishwasher Cycle = 57 Litres (5.7 buckets)



About 25 Buckets = 250 Litres



Conserving
Canada's
Wetlands

Manitoba