

ELD SCIENCE UNITS GRADE 8



Windsor-Essex Catholic District School Board

Acknowledgements

Unit Development

Windsor Essex Catholic District School Board

2010-2011 ESL Teachers

Karla Bonilla

Peter Burza

Laura Chiasson

Kelly DeJong

Miguel Gil

Emily Leung

Dolores Maillet

Darlene Marshall

Connie Renaud-Powers

Josie Zannese

Project Co-ordinator

Dolores Maillet

ESL/ELD Academic Supervisor

Thérèse Barichello

A special thank-you goes to: Lucia Costache, Frank DiPietro,
Manon Pageau-Lane, Nizar- El Kadri and Wanda Borré



SCIENCE UNIT INTRODUCTORY PAGE

Grade 8- Understanding Life Systems

Strand	Reference	Materials
Understanding Life Systems	Lesson 1-Animal Cells	Activity 1- pg. 50-51 <u>Content Essentials for Science Level B</u> Activity 2- Model of a cell. (Use a hard-boiled egg as a model of a cell, or a plastic sheet with a styrofoam frame.)
	Lesson 2- Cells, Tissues, Organs and Organ Systems (If time permits it can be taught as 5 separate lessons.)	Activity 1- pg. 52-63 <u>CES Level B</u> Draw and label the body systems
	Lesson 3-Food	Activity 1- Go to www.mes-english.com and under Food Flashcards see power point entitled Food Power. Use Appendix A to classify good food and bad food. Activity 2- Print food flashcards and body part flashcards from www.mes-english.com and use for vocabulary games. Activity 3- Use Canada Food Guide (attached) to track their food consumption and note necessary improvements. It is available in many languages at www.healthcanada.gc.ca/



Unit Plan - ELD Science and Technology

Grade: 8

Strand: Understanding Life Systems

Title: Cells

Overall Expectations	Big Ideas
<p>Demonstrate an understanding of the basic structure and function of plant and animal cells, and describe the hierarchical organization of cells in plants and animals;</p> <p>Investigate basic cellular processes and certain specialized cells in plants;</p> <p>Describe ways in which study of the structure, function, and interdependence of human organ systems can result in improvements in human health.</p>	<p>Cells are the basis life. (Overall expectations 2 and 3)</p> <p>Cells organize into tissues, tissues into organs, organs into systems, and systems into organisms. (Overall expectations 2 and 3)</p> <p>Healthy cells contribute to healthy organisms. (Overall expectations 1 and 2)</p> <p>Systems are interdependent. (Overall expectations 1 and 3)</p>
Specific Expectations	Specific Expectations Modified
<p>3.2 Identify organelles in cells through observation (e.g., vacuole, nucleus, chloroplast) and explain their functions</p> <p>3.6 Describe the organization of cells into tissues, organs, and systems</p> <p>2.2 Use a microscope accurately to find, observe, and draw microscopic objects</p>	<p>Identify and label parts of an animal cell and functions. i.e., the membrane protects the cell</p> <p>Demonstrate understanding by labelling tissues, organs and organ systems.</p> <p>Prepare dry slides of a hair.</p>



<p>1.2 Describe ways in which research about cells has brought about improvements in human health and nutrition (e.g., development of medicines, immunization procedures, and diets based on the needs of organs such as the heart);</p>	<p>After learning the vocabulary for food, fruit, etc., students choose healthy food by using the Canada Food Guide in their language. Students will learn to use the Canada Food Guide properly to keep their bodies healthy.</p> <p><i>*Curriculum expectations may not be appropriate for all students who are learning the language, especially those who are in the early stages of second language development.</i></p>
<p>Links to Prior Knowledge</p> <p>Students may have first-hand experience or knowledge about one or more of the following:</p> <p>Some knowledge of body systems, (i.e., breathing, circulatory, muscular, etc, An understanding of the importance of good, fresh food.)</p>	<p>Students may have acquired the skills of:</p> <ul style="list-style-type: none">- drawing and labeling diagrams-working cooperatively with a partner



Modified Activities for ELD

Lesson 1 Animal Cells

Activity 1: Draw, identify and label parts of an animal cell using p.50-51 of CES-Lev B

Activity 2 Cut a hardboiled egg in half and use as a model with the shell as the membrane, yolk as nucleus, white as cytoplasm, use a marker to dot the white with "organelles".

Or, make a model of a cell with a plastic sheet and a styrofoam frame from the Dollar Store. Draw the nucleus and the organelles on the plastic with markers.

Lesson 2 Groups of Cells Form Tissues, Tissues form Organs and Organ Systems Do Jobs

: CES Lev B p. 52-63 Demonstrate an understanding of how groups of cells form tissues and tissues form organs and organ systems do specific jobs.

Activity 1 Draw and label the Body Systems on p. 52- 63 (Skeletal p. 54 Respiratory p.59, Digestive p. 56, Circulatory System p.60, Nervous p. 63) (If time permits, this can be slowed down and done as 5 separate lessons.)

Activity 2 Have students hold hand palm up and squeeze as often as possible in 1 minute.

Activity 3 Have them listen to each other's heart with a paper towel roll. Count beats for 30 seconds and then multiply by 2 to get the heart beats per minute.

Using Page 50 in CES Level B Student book, have students tell you what they know about cells.

Activity 4:

Then have students make a dry mount slide of a hair from their own head and have them look at it under a microscope. Have them illustrate what they see and then

Vocabulary/Language Prompts

Cells, membrane, nucleus , organelles, cytoplasm, tissues, organ, body systems, skeletal, bones, joints, muscular, muscles, digestive, mouth, esophagus, stomach, intestines, respiratory, windpipe, lungs, nose, capillaries, circulatory, heart, veins, arteries, blood, nervous, brain, nerves, spinal cord,

Body Part flash cards: tongue, teeth, toe, tummy, arm, back, bottom, belly button, face, finger, foot, hair, knee, leg, lips, mouth.



compare a drawing of a hair with the naked eye.

Lesson 3 Go back to The Digestive System on page 56 and focus their attention on the pictures of food. Ask if it is good food. Make the point that their bodies need good food in order to work well.

Activity 1 Online, go to www.mes-english.com and under Food Flashcards open the Power Point entitled Food Power Point Flashcards. As they look at the food, have them use Appendix A to divide the good food from the junk food.

Activity 2 You can print the small food flashcards found at www.mes-english.com under flashcards then food flashcards, and use them for various matching games, as well as the Body Part flashcards from the same website which also fit into this unit, as far as useful everyday vocabulary for ELDs is concerned. The mes website also has a Power Point for Body Parts.

Cont'd

Activity 3 We highly recommend having the students become familiar with the Canada Food Guide (attached) which is available in several languages at www.healthcanada.gc.ca/foodguide

Students can track what they eat for a week and think of ways to improve their diet. Then they can implement the improvements and track their success. They can also learn how to read food labels, etc.

Food flash cards: bread, broccoli, cake, cookies, cabbage, corn, cornflakes, cucumber, jelly, lettuce, milk, nuts, salad, sandwich, sausages, soda, apple, banana, orange, lemon

dairy, protein grains, fruits and vegetables

(It is suggested that students keep a bilingual dictionary in their own language and English to keep track of their new vocabulary. If they don't know the word in their language (i.e., esophagus) they can draw it in their dictionary.



<i>Assessment of Learning</i>	<i>Assessment for Learning</i>	<i>Assessment as Learning</i>
<ul style="list-style-type: none"> • Peer assessment • Teacher rubric • ESL Support teacher assessment using L1 if possible • Re-telling • Role plays/demonstrations 	<ul style="list-style-type: none"> • Teacher observations including anecdotal • Student teacher conferences • Peer groupings • Cloze exercises • Sequence and matching exercises 	<ul style="list-style-type: none"> • ESL Buddy Assessment • Self assessment checklist

Levels of Thinking and Language Function <i>Appraise, assess, attach, choose, compare, defend, estimate, judge, predict, select, support, value, evaluate</i>	Preproduction (non verbal response) PROMPTS: <i>Show Me, Circle the, Where is, Who has, Draw, Label</i>	Early Production (one word response) PROMPTS: <i>Yes/No, Either/Or, Who, What and How</i>	Speech Emergence (Phrase or short sentences) PROMPTS: <i>Why, How, Explain, questions requiring a short sentence response</i>
Evaluation <i>Arrange, assemble, collect, compose, construct, create, design, develop, formulate Manage, organize, plan, prepare, propose, set up</i>	Assess Rate Select Choose Attach	+ Compare Estimate Value	+ Predict Evaluate Examine Judge
Synthesis <i>Analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test</i>	Plan Construct Collect Assemble Arrange	+ Organize Set up Design	+ Create Compose Develop Formulate
Analysis <i>Analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test</i>	Categorize Test Examine	+ Contrast Experiment Differentiate	+ Compare Criticize Discriminate Question Distinguish
Application <i>Apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use</i>	Dramatize Choose Illustrate Practice Sketch	+ Demonstrate Employ Schedule	+ Apply Interpret Operate Use Solve
Comprehension <i>Classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, translate</i>	Classify Locate Select	+ Describe Identify Indicate Recognize	+ Express Restate Review
Knowledge <i>Arrange, order, define, duplicate, label, name, recognize, relate, recall, repeat, reproduce</i>	Label Order Arrange Draw Match	+ Name Recognize Repeat	+ Define Reproduce Recall

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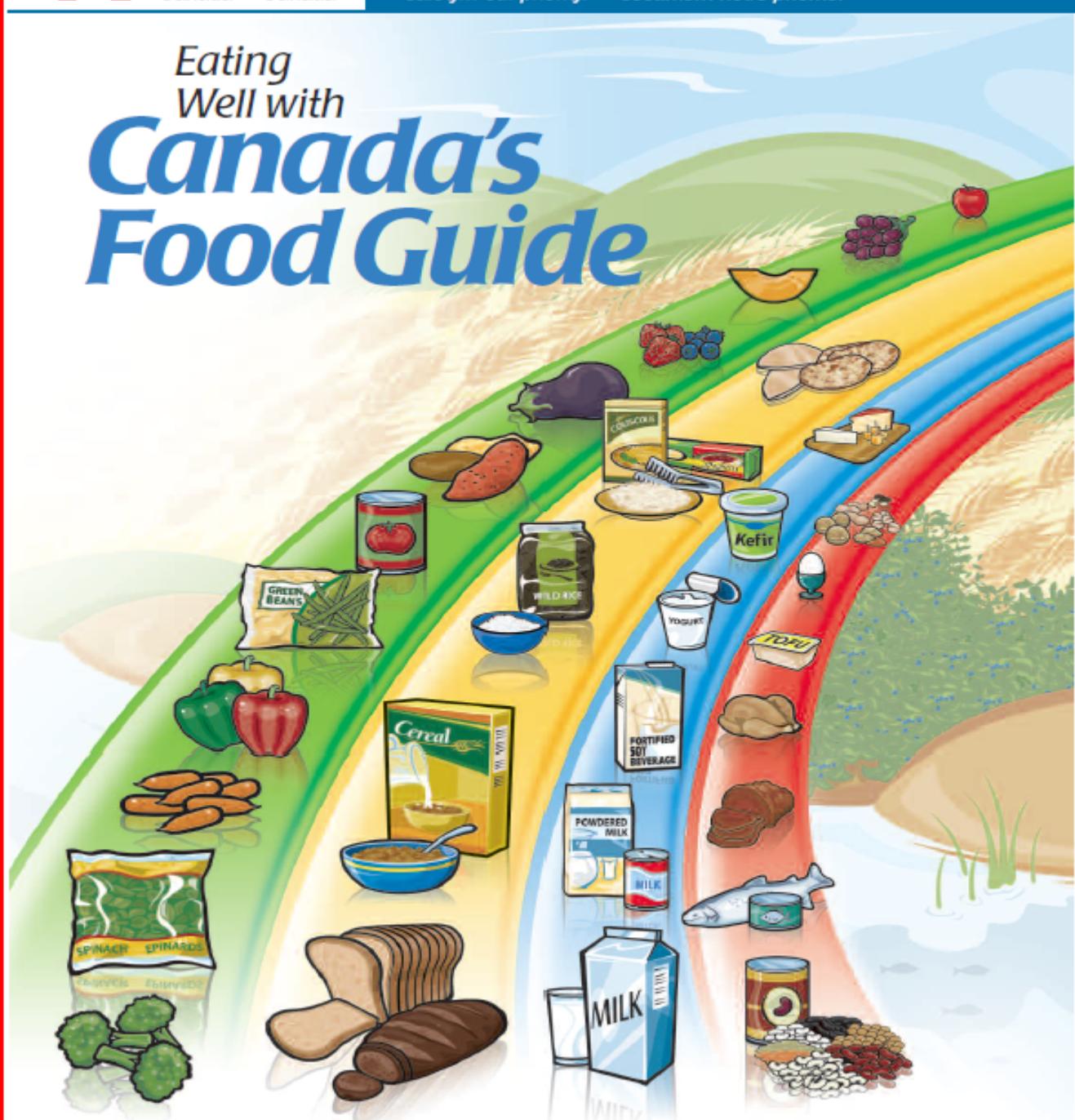
Health
Canada

Santé
Canada

Your health and
safety... our priority.

Votre santé et votre
sécurité... notre priorité.

Eating Well with **Canada's Food Guide**

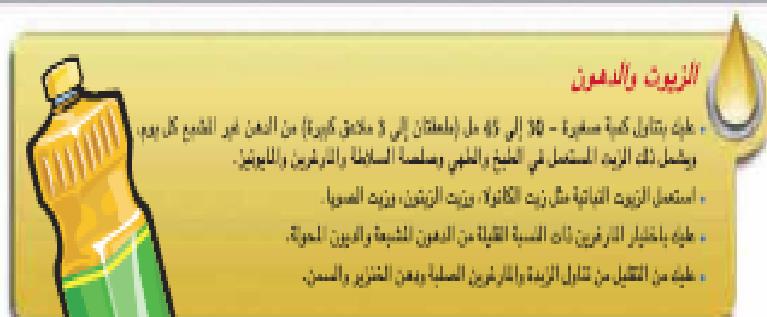


Canada

ما هي حصة واحدة من دليل الأغذية؟
لنشر الأملة للدربة أدلة.



الزيت والدهون



Número de porciones de la Guía Alimentaria recomendada por día						
Motivo de vida	niños 3-5 6-10 11-12 13-18 adultos	adolescentes 13-18 adultos 19-50 adultos 51-65 adultos	adultos 66 y más			
Frutas y hortalizas	4 5 6 7 8 7-8-8-10 7	 Fruta seca, mermeladas 250g/Dia	 Fruit juice Fruit 100% juice Fruit juice 100g/Dia	 Fruit juice milk 100g/Dia	 Orange juice 100g/Dia	Aplicar las pautas de la Guía Alimentaria ... • Evitar el consumo excesivo de azúcar en bebidas y zumos de frutas y vegetales. • Beber agua en vez de refrescos o zumos de frutas y vegetales.
Cereales y derivados	3 4 6 6 7 6-7 8 6 7	 Pan 100g(Dia)	 Bread & cereal 100g(Dia)	 Cereals & yogurt 100g(Dia)	 Bread & cereal 100g(Dia)	Aplicar las pautas de la Guía Alimentaria ... • Beber agua en vez de zumos de frutas y vegetales.
Lacteos y productos de leche	2 2 3-4 3-4 3-4 2 2 3 3	 Lact. sólidos para bebé/niño 250g/Dia	 Yogurt 250g/Dia	 Yogurt 250g/Dia	 Yogurt 250g/Dia	Aplicar las pautas de la Guía Alimentaria ... • Evitar el consumo excesivo de leches con alto contenido de grasa.
Carnes y productos de carne	1 1 1-2 2 3 2 3 2 3	 Beefs, chicken and other meat products 250g(Dia)	 Eggs 250g(Dia)	 Eggs 250g(Dia)	 Eggs 250g(Dia)	Aplicar las pautas de la Guía Alimentaria ... • Evitar el consumo excesivo de carnes y derivados.

Consejos para la salud y el bienestar en función del motivo de vida:

- Evitar el consumo excesivo de azúcar en bebidas y zumos de frutas y vegetales.
- Evitar el consumo excesivo de leches con alto contenido de grasa.
- Evitar el consumo excesivo de carnes y derivados.
- Evitar el consumo excesivo de alcohol.

Alta grasa:

- Consumir diariamente una porción media de líquido con alto contenido de grasa (100-150 ml). Una cantidad menor que las necesidades puede causar la anemia y una cantidad mayor la congestión y la obesidad.
- Evitar aceites vegetales tales como aceite de maíz, aceite de oliva o aceite de girasol.
- Evitar aceites vegetales bajos en grasas saturadas y grasas trans.
- Evitar el consumo de aceite vegetal en la preparación y cocción de los alimentos.

Bebida agua para calmar la sed:

- Evitar el consumo excesivo de agua con gas y bebidas con azúcar.

Appendix A



Good Food

Junk Food



SCIENCE UNIT INTRODUCTORY PAGE

Grade 8 - Understanding Structures and Mechanisms - Systems in Action

Strand	Reference	Materials
Understanding Structures and Mechanisms- Systems in Action	Lesson 1- Our Health System	<p>Activity 1- See attached page Going to the Doctor to promote a short discussion.</p> <p>Activity 2- Appendix 1 is the oral part of the game to be used with flashcards (Appendix 4 from www.bogglesworldesl.com)</p>
	Lesson 2- Health and Hygiene	<p>Activity 1-Health puzzle-Appendix 2 entails matching corresponding terminology.</p> <p>Activity 2- Learn terminology in Washing Hands Poster Appendix 3 and translate into their first language.</p> <p>Activity 3- www.mes-english.com Download body part flashcards and use for vocabulary matching games.</p>
	Lesson 3- Simple Machines	<p>Activity 1- CES P.196-199 and afterwards go to http://www.internet4classrooms.com/science_elem_machines.htm to review Simple Machines.</p> <p>Activity 2-Appendix 5 The screw is an inclined plane believe it or not.</p>
	Lesson 4- Waste and Recycle	<p>Activity 1- Appendix 6, and four empty shoe boxes. Appendix 7 cut into pieces and place labels on boxes so the students can sort waste.</p> <p>Activity 2- Website www.ecokids.ca Select Top Ten Games, then select, "I don't want o clean my room!"</p> <p>Activity 3- Online activity www.Iwmc.pe.ca and select Interactive Sorting Guide.</p>



Unit Plan - ELD Science and Technology

Grade: 8

Strand: Understanding structure and mechanism

Title: Systems in action

Overall Expectations	Big Ideas
<ol style="list-style-type: none">1. Assess the personal, social, and/or environmental impacts of a system, and evaluate improvements to a system and/or alternative ways of meeting the same needs; 2. Investigate a working system and the ways in which components of the system contribute to its desired function; 3. Demonstrate an understanding of different types of systems and the factors that contribute to their safe and efficient operation.	<p>Systems are designed to accomplish tasks. (<i>Overall expectations 1, 2, and 3</i>)</p> <p>All systems include an input and an output. (<i>Overall expectations 2 and 3</i>)</p> <p>Systems are designed to optimize human and natural resources. (<i>Overall expectations 1 and 3</i>)</p>



Specific Expectations	Specific Expectations Modified
<p>1.1 Assess the social, economic, and environmental impacts of automating systems</p> <p>2.4 Use technological problem-solving skills (see page 16) to investigate a system (<i>e.g., an optical system, a mechanical system, an electrical system</i>) that performs a function or meets a need</p> <p>Sample problem: Create a device that will carry a snack from one place to another. Describe the function of each component part, and examine the effects of making a change to one or more of the components.</p> <p>Sample guiding questions: What purpose or need does your device fulfil? When you tested your device, which component or components worked as intended? Which did not? Why do you think the problem occurred? Predict what will happen if you remove or change the size or direction of one or more of the components.</p> <p>3.1 Identify various types of systems (<i>e.g., mechanical systems, body systems, optical systems, mass transit systems, Aboriginal clan systems, health care systems</i>)</p> <p>3.8 Describe systems that have improved the productivity of various industries (<i>e.g., robotic systems have increased the rate of production in factories that assemble the fine parts of wrist watches</i>)</p>	<p>1. 1 Learn about the garbage collecting services, landfills and recyclable materials</p> <p>3.8 Describe and categorize simple machines and how they help improve our ever</p> <p>3.1 Become familiar with health related terminology and the structure of the Canadian Health System</p> <p>3.8 Explain how simply educating people about improvements in health care such as Washing Hands has decreased the amount of colds and flu.</p> <p>*Curriculum expectations may not be appropriate for all students who are learning the language, especially those who are in the early stages of second language development.</p>



Links to Prior Knowledge

A familiarity with their medical system in the country of origin, symptoms of sickness, a knowledge of hygiene and some experience with waste disposal and recycling. Students will also likely have some experience with using simple tools.

Modified Activities for ELD students

Lesson 1

In this lesson students will become familiar with the Canadian Health system and what it can offer. This will be acquired through explanations, through games, and visual aids.

Activity 1:

Teacher asks students without any previous discussions if they can name the pictures on the attached page entitled ..GOING TO THE DOCTOR. This will be an opportunity to assess their familiarity with health related terminology.

Activity 2

The Health and Sickness flashcards from www.bogglesworldesl.com are attached (Appendix 4) and are to be used together with Appendix 1. The visuals illustrate various symptoms and maladies. Students can play in pairs or groups and act out the situation (ie. bee sting) and have the partner guess what is the matter with them. Then they can say it and write it. Peers or teachers can ask the questions in Appendix 1 to encourage conversation.

Vocabulary/Language

Prompts

Dentist, blurry vision , eye doctor earache, itchy scalp, lice, coughing, sneezing, antibiotics, prescription, nuts, common allergy, infection, high fever, sunburn, tooth cavity, health unit, joint pain, chiropractor, paper towel, hands, rinse, elbow, scrub, health system, doctor, health, sanity, body parts, tooth, eye, limb, ears, mouth, throat,



Lesson 2 Becoming familiar with simple symptoms and maladies and who to go to have it dealt with.

Activity 1

1. The Health puzzle (attached-Appendix 2) is to be cut into squares and students have to put it back together being sure to match the corresponding terminology. It can be done in with a peer or together with the teacher and entire group

Activity 2

Have students learn the vocabulary on the poster in English and then label the washing hands poster in their own language. Poster attached (Appendix 3)

Activity 3

The body part flashcards from www.mes-english.com can be used as an additional lesson if necessary.

Discussion about the importance of washing hands to prevent the spread of germs is important. Indeed it significantly reduces the spread of illnesses.

Machine, system, incline plane, screw, wheel, axle, pulley, wedge, lever, fulcrum, force, effort, efficient, load, length, strength

Lesson 3

Students will learn six types of simple machines by reading the lesson "Simple Machines" in Content Essentials for Science-Student Handbook pages 196-199. As the students read the information, the teacher will have at least one example of each type of machine to show to the students and demonstrate how it is used to improve our lives.



Activity 1 If students have access to the computer lab they will learn more about the simple machines by going to:

http://www.internet4classrooms.com/science_elem_machines.htm

and then choosing option 21 from a list of 30 . This activity will give them more examples of simple machines that we use in our everyday life.

Activity 2 Then, students will work in groups of 2-3 to perform the hands on activity "The Screw" (Appendix 5) which visually shows why the screw is actually an inclined plane.

Finally, students will independently complete the worksheets "Simple machines 1" and "Simple Machines 2"from the "Black line master" level B page95-96.

Lesson 4

This lesson is designed to create awareness regarding the types of waste we create and the options for its disposal and also to stimulate critical thinking about choices we make for consumer products and support of our overall lifestyle. Students will be challenged to be mindful of the short and long term effects of the waste stream we generate.

The lesson consists of two activities:

Compost, waste, recycle, hazardous waste, light bulb, paint, battery, oil, paint thinner, apple core, banana peel, newspaper, old clothes, diaper, melon rind, soda can, bone, old burger, oven cleaner, CD player, keyboard, root beer, ketchup, pizza, pizza box, toy robot, varnish, envelope, hair spray, tire



Activity 1 The teacher will read the information from the text (Appendix 6)and focus on the key words...

Find 4 empty shoe boxes and put one of the signs provided (appendix 7) on the outside of each box. On the following pages, print out the various trash items and then cut them into pieces. Hand each student an item, and then have each student bring the item to the shoe box area and make a choice about which place the trash item should go. After all the trash items are in the shoe boxes, go through each box, holding up the item and asking whether it was put into the appropriate box. This exercise with help students understand the various types of trash and give them a better understanding of how and why we recycle.

Activity 2 Students can go to www.ecokids.ca , then Top 10 games, then select " I don't want to clean my room!" There are 24 objects to place in the appropriate bin.

Activity 3 Alternatively students can go online to www.Iwmc.pe.ca and if they click on Interactive Sorting Guide, they open a picture list of what to put in that particular bin.



InteractiveSortingGuide11.pdf



<i>Assessment of Learning</i>	<i>Assessment for Learning</i>	<i>Assessment as Learning</i>
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Levels of Thinking and Language Function	Preproduction (non verbal response) PROMPTS: Show Me, Circle the, Where is, Who has, Draw, Label	Early Production (one word response) PROMPTS: Yes/No, Either/Or, Who, What and How	Speech Emergence (Phrase or short sentences) PROMPTS: Why, How, Explain, questions requiring a short sentence response
Evaluation <i>Appraise, assess, attach, choose, compare, defend, estimate, judge, predict, select, support, value, evaluate</i>	Assess Rate Select Choose Attach	+ Compare Estimate Value	+ Predict Evaluate Examine Judge
Synthesis <i>Arrange, assemble, collect, compose, construct, create, design, develop, formulate Manage, organize, plan, prepare, propose, set up</i>	Plan Construct Collect Assemble Arrange	+Organize Set up Design	+ Create Compose Develop Formulate
Analysis <i>Analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test</i>	Categorize Test Examine	+ Contrast Experiment Differentiate	+ Compare Criticize Discriminate Question Distinguish
Application <i>Apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use</i>	Dramatize Choose Illustrate Practice Sketch	+ Demonstrate Employ Schedule	+ Apply Interpret Operate Use Solve
Comprehension <i>Classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, translate</i>	Classify Locate Select	+ Describe Identify Indicate Recognize	+ Express Restate Review
Knowledge <i>Arrange, order, define, duplicate, label, name, recognize, relate, recall, repeat, reproduce</i>	Label Order Arrange Draw Match	+ Name Recognize Repeat	+ Define Reproduce Recall

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APPENDIX 1

2. As an activity the students can play a game called "Health Flashcards"
Follow the below instructions to play the game:

The Health and Sickness Cards:

These cards originated as a request from someone wanting to send their children to a foreign country to study English. One of their concerns was that their children couldn't communicate when they were sick or had a health issue. The parents asked for some resources, but we could only find resources with the usual basic vocabulary: cold, sore throat, headache, and stomach ache.

So they created a flashcard game to teach the more complicated vocabulary related to health issues. These cards are the beginning of what we hope will be some extensive resources on teaching the language of health.

To play the game, you will need to print off two of each card and either laminate them or put a cardboard backing behind them.

Variation:

After the students get good at it, you can make them give some advice before they can get a point:

Student 1: Is something wrong with your body?

Student 2: Yes, there is.

Student 1: Do you have a sunburn?

Student 2: Yes, I do.

Student 1: You'd better put on some lotion.

How to play:

The game is basically 'Fish', but with a catch to try to get more language production from students. There are three ailments for each part of the body. Students first ask a question to find out, if another student has a problem with

the same body part. If the other student says yes, then the first student asks again to see if they have the same problem. If they do then the first student gets the pair and gets 1 point. There are three possible interaction cases in this version of fish:

Student one chooses another student (say student two) and asks if something is wrong:

Case 1:

Student 1: Is something wrong with your eye?

Since student two doesn't have the card student one is looking for, student one picks a card from the deck. Then the next player takes a turn.

Case 2:

Student 1: Is something wrong with your head?

Student 2: Yes, there is.

Student 1: Do you have a bump?

Student 2: No, I don't

Since student two doesn't have the card student one is looking for, student one picks a card from the deck. Then the next player takes a turn.

Case 3:

Student 1: Is something wrong with your nose?

Student 2: Yes, there is.

Student 1: Do you have a nosebleed?

Student 2: Yes, I do.

Student two has the card that student one is looking for, so student one takes the card, makes a pair, and gets 1 point. Then the next player takes a turn.

Examples of questions the students can ask:

Question 1

A: Is something wrong with your eye? B: Yes, there's something wrong with my eye.

B: No, there's nothing wrong with my eye.

Student 2: No, there isn't.

A: Do you have pink eye?

B: Yes, I have pink eye.

B: No, I don't have pink eye.

Eye

Leg

Do you have pink eye?

Do you have a cut?

Do you have an allergy?

Did you get bit by a dog?

Do you have a black eye?

Did you break your leg?

Body

Throat

Do you have a sunburn?

Do you have a cough?

Do you have a mosquito bite?

Do you have a sore throat?

Do you have a bee sting?

Are you choking?

Stomach

Nose

Do you have a stomach ache?

Do you have a nosebleed?

Do you have a stomach cramp?

Do you have a broken nose?

Do you feel like throwing up?

Do you have a runny nose?

Skin

Do you feel itchy?

Do you have a burn?

Do you have a rash?

You

Do you have the flu?

Do you have a fever?

Do you have a chill?

Foot

Did you twist your ankle?

Do you have a blister?

Did you stub your toe?

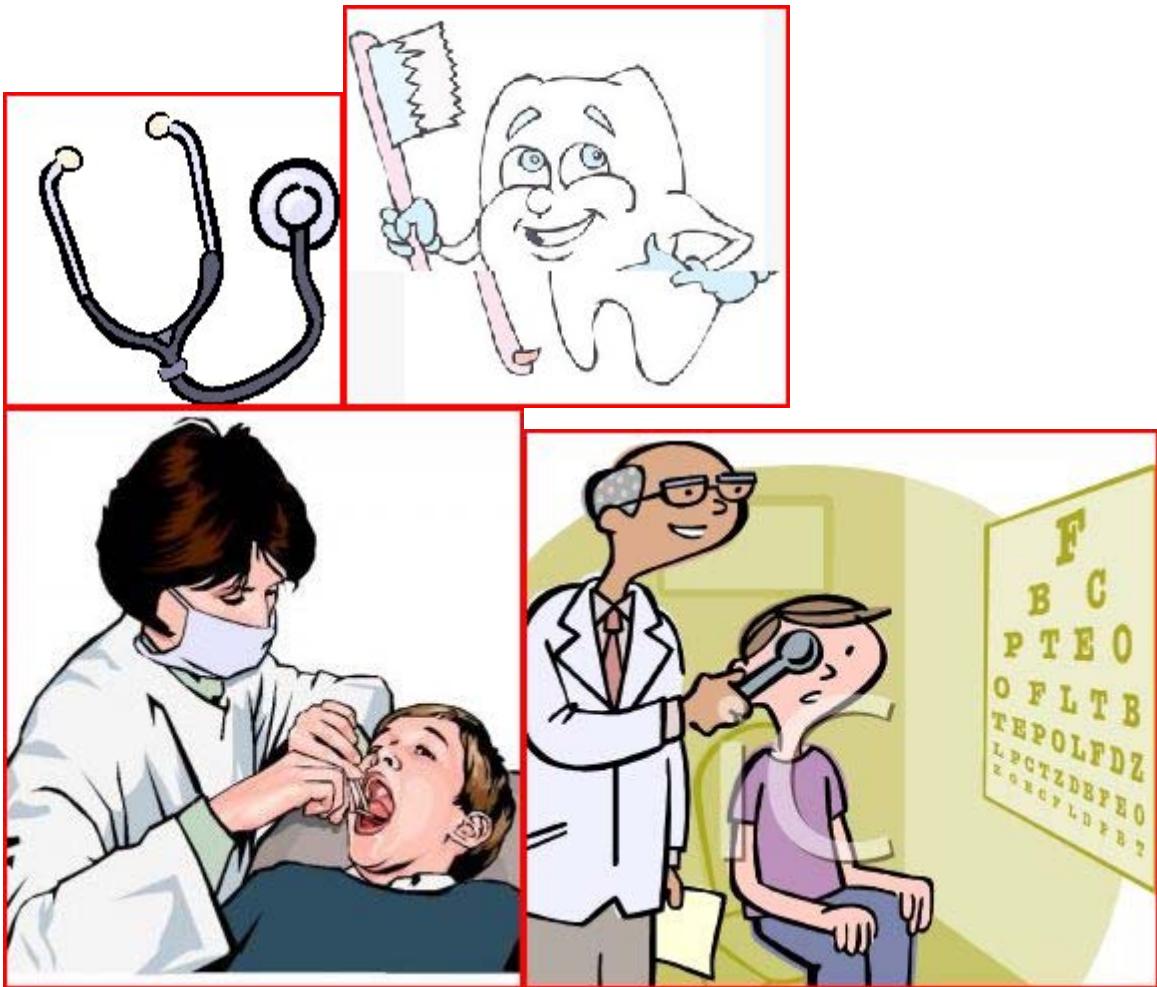
Head

Do you feel dizzy?

Do you have a bump?

Do you have a headache?

GOING TO THE DOCTOR



Appendix 3



6 Dry with paper towel



1 Wet your hands



2 Apply solution and scrub
for at least 15 seconds



5 Turn off water lever
using your elbows



4 Rinse your hands



3 Scrub back of hands,
wrists, between fingers
and under fingernails

Health puzzle Appendix 2

Dentist		Blurry vision	Eye doctor	Itchy scalp	Lice
Tooth cavity	Sun exposure	Ear ache	Family doctor	Coughing	Sore throat
High fever		Joint pain	Sunburn	Health Unit	Antibiotics
Infection	Allergies	Chiro-practor	Repeated sneezing	Donate blood	Prescription
		Common allergy		Nuts	

Appendix 4





EYE

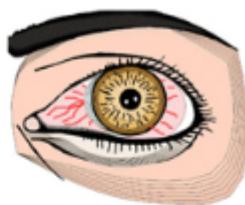


Do you...?

HAVE A BLACK EYE



EYE



Do you...?

HAVE PINK EYE

www.bogglesworldesl.com



EYE



Do you...?

HAVE AN ALLERGY



FOOT



Did you...?
TWIST YOUR ANKLE

www.bogglesworldesl.com



FOOT



Did you...?
STUB YOUR TOE



FOOT



Do you...?
HAVE A BLISTER



HEAD



Do you ... ?

FEEL DIZZY



HEAD



Do you ... ?

HAVE A BUMP



HEAD



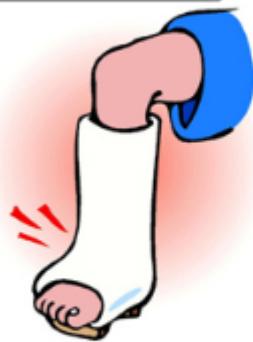
Do you ... ?

**HAVE A
HEADACHE**

www.bogglesworldesl.com



LEG



Did you ... ?

BREAK YOUR LEG



LEG



Do you ... ?

HAVE A CUT

www.bogglesworldesl.com



LEG



Did you ... ?

GET BIT BY A DOG



NOSE



Do you ... ?

**HAVE A
NOSEBLEED**

www.bogglesworld esl.com



NOSE



Do you ... ?

**HAVE A
BROKEN NOSE**



NOSE



Do you ... ?

**HAVE A
RUNNY NOSE**



SKIN



Do you...?

HAVE A RASH



SKIN



Do you...?

HAVE A BURN

www.bogglesworldesl.com



SKIN



Do you...?

FEEL ITCHY



STOMACH



Do you ...?

**HAVE A
STOMACH CRAMP**



STOMACH



Do you ...?

**HAVE A
STOMACHACHE**



STOMACH



Do you ...?

**FEEL LIKE
THROWING UP**

www.bogglesworldesl.com



THROAT



Do you ...?

HAVE A COUGH



THROAT



Do you ...?

**HAVE A
SORE THROAT**



THROAT



Are you ...?

CHOKING



YOU



Do you ... ?

HAVE A FEVER



YOU



Do you ... ?

HAVE A CHILL



YOU



Do you ... ?

HAVE THE FLU

Appendix 5

The Screw

This simple demonstration shows how a screw is actually an inclined plane. You may want to do this as a demonstration for your class or have every student make their own.

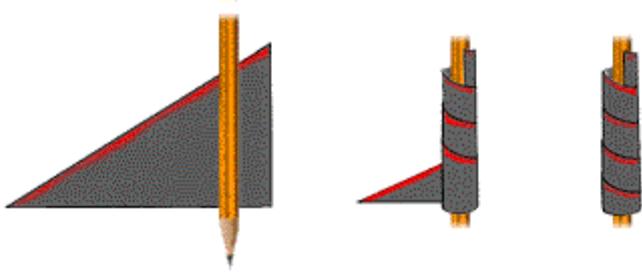
Materials

Pencil

Paper

Coloured felt tip marker

Scissors



Procedure

1. Cut a right triangle from the paper. The dimensions should be about 5 inches, by 9 inches, by 10.3 inches.
2. Use the felt tip marker to color the longest edge (10.3 inches) of the triangle.
3. Position the shortest side (5 inches) of the triangle along the side of the pencil and then evenly wrap the paper around the pencil by rolling the pencil.

Appendix 6

Where does our trash go?

Every week the average family takes bags of trash to a dumpster, or rolls trash cans down to the side of the road. Then, some large truck comes along and takes it all away. Once it's gone, most of us stop thinking about our trash and where it has gone. But trash has to end up somewhere. That "somewhere" is a place called a landfill.

What is a Landfill?

A landfill is a very large area of open land that has been turned into a container for our trash. Large trucks and earth-moving equipment dig a large pit, and then cover the bottom of the pit with a layer of thick, waterproof clay. The clay is covered with soil, and then trash and soil are layered on top of each other, eventually filling up the pit. Once the pit is full, another layer of soil goes on top and then grass is planted to keep the soil from being carried away by the rain.

Is there enough room for all of our trash?

Even though there are millions of acres of land available for landfills, they create as many problems as they solve. First, people don't want to live in neighbourhoods or shop at stores that are near to landfills, so most landfills are located in places far away from towns and cities. That means trash trucks have to drive long distances to dump the trash. As our populations grow, the distance between people and landfills get smaller, and at some point we will be living very close to all our trash.

What can we do to reduce our trash?

There are some important steps we can take. First, we can reduce the amount of packaging on products sold at stores. Second, we can pass laws that require companies to use recyclable materials to make products and packaging. Third, we can learn about the different kinds of trash and where to properly dispose of them.

4 Main Types of Trash and What We Do with Them:

1. COMPOST - We can put some types of food scraps into a compost pile

- A compost pile is a place where grass and leaves are piled up or put into a very large container so that bacteria can break them down into rich soil fertilizer.
- Some types of food can be put into a compost pile, including vegetable and fruit scraps and peels, nut shells, coffee grounds, bread and grain scraps.
- By composting these food wastes, we can reduce the amount of trash in garbage trucks, which makes them use less fuel. Also, landfills won't fill up as quickly.



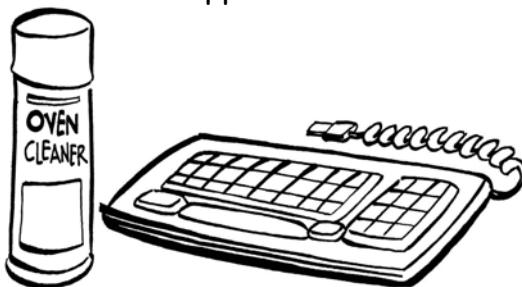
2. RECYCLING - We can sort out some trash and recycle it

- Recycling is one of the best ways to reduce the trash in landfills. We can recycle some types of trash, saving both natural resources and energy.
- Items that can be recycled include glass, aluminum, some types of plastics and most types of paper and cardboard.
- Most communities and trash collection companies now offer recycling options for your family!



3. HAZARDOUS WASTE - Some things are just too dangerous to throw in the trash

- There are many products available at stores that are made with dangerous chemicals such as petroleum and chlorine.
- The items that should go to a hazardous waste center include many kinds of paint, spray paint, paint thinner, solvents and cleaners, batteries, electronics (computers, TVs, mp3 players) and CDs, light bulbs, especially fluorescent tubes, and all sorts of bleaches.
- Communities have Hazardous Waste collection centers where these types of products can be dropped off.



4. Waste FOR LANDFILLS -For some things, the only option is a landfill

- If it can't be recycled or composted, and if it isn't a hazardous material, it has to go to a landfill.

- Things that go into landfills are old clothes and fabrics, meat, cheese and dairy leftovers, disposable diapers, juice boxes, paper, plastic, and metals that can't be recycled.

- If we can reduce the amount of plastics and paper used in packaging and consumer products, we can reduce our need for landfills.



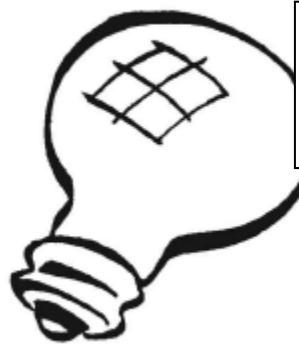
Appendix 7

COMPOST

RECYCLE CENTER 

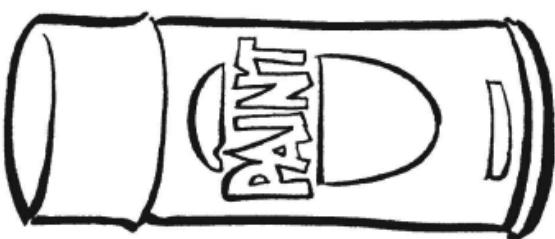
waste

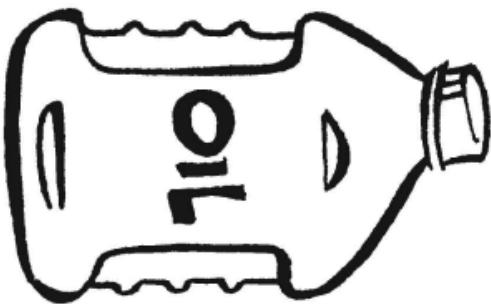
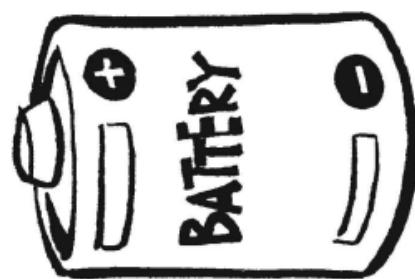
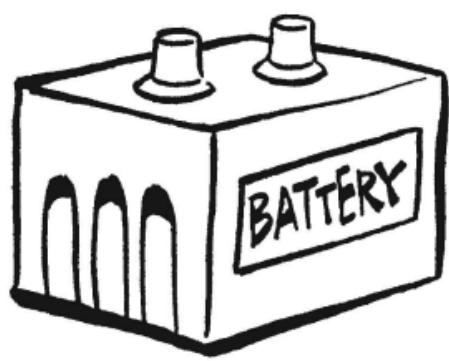
**HAZARDOUS
WASTE** 

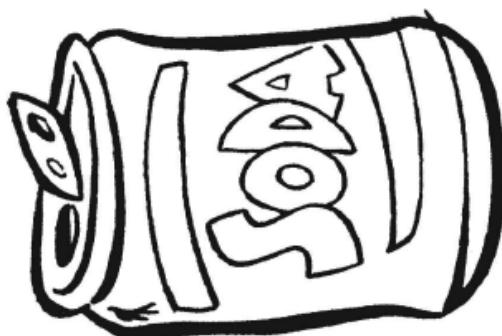


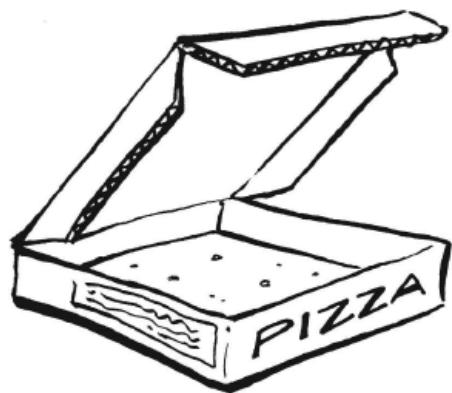
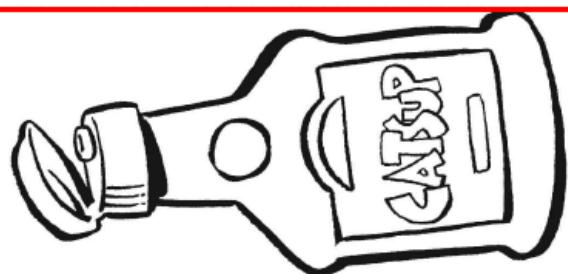
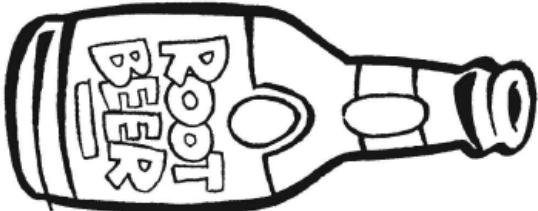
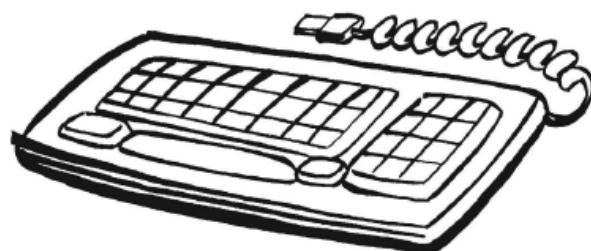
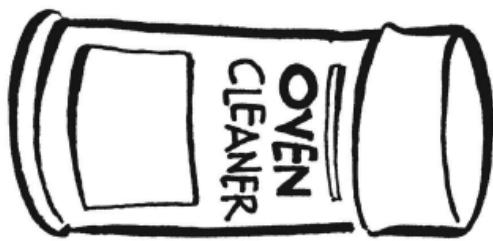
light

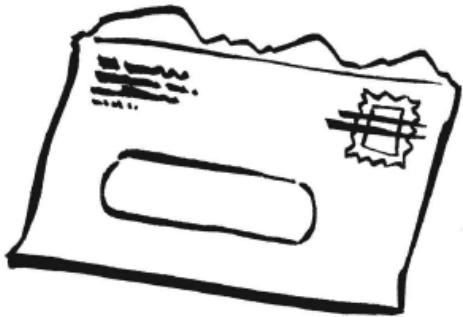
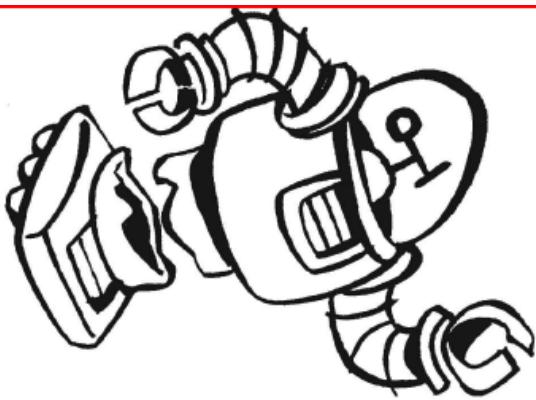
bulb

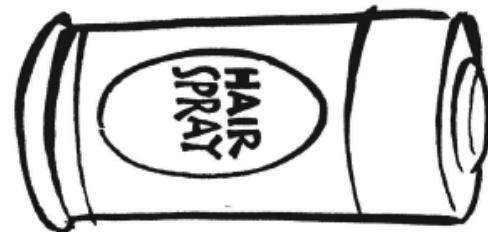


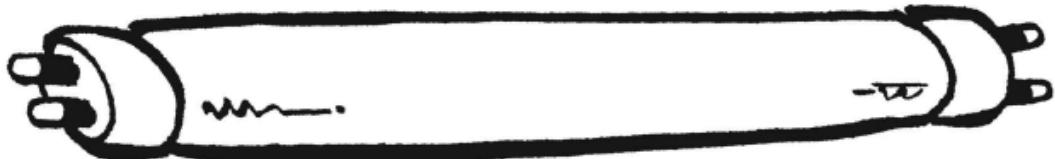
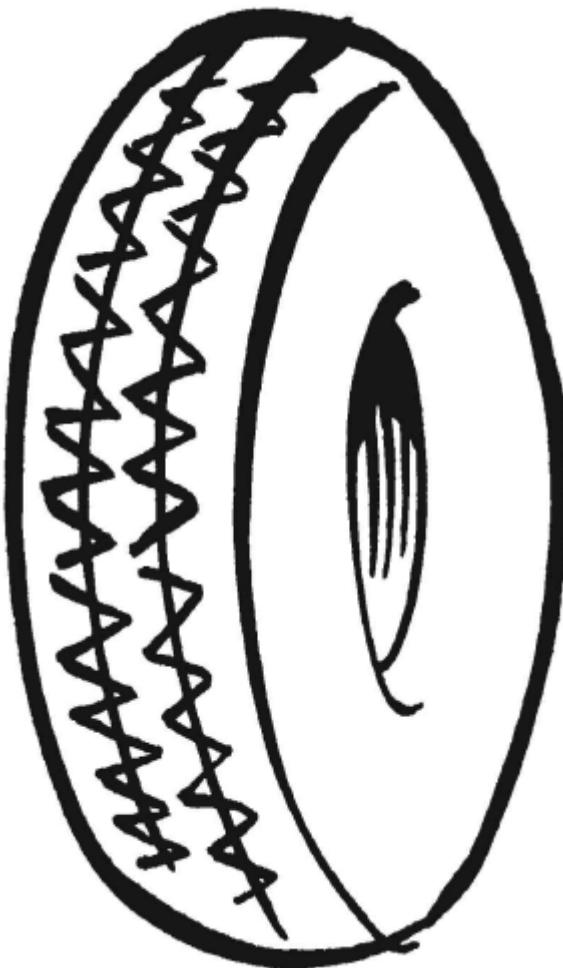












Fluorescent light bulb



SCIENCE UNIT INTRODUCTORY PAGE

Grade 8- Understanding Matter and Energy

Strand	Reference	Materials
Understanding Matter and Energy	Lesson 1- States of Matter	Activity 1- Content Essentials for Science B, p.158-159 For extra visuals go to http://science.pppst.com/matter.html Activity 2- Appendix A (attached) Have students classify items as solids, liquids and gases. Activity 3- View power point about measuring matter(http://www.schools.pinellas.k12.fl.us/educators/tec/Davis2/matter.ppt/sld001.htm Content Essentials for Science A, p.160-163 student handbook
	Lesson 2- Measuring Volume	Activity 1- Print back of metric flashcards from http://www.sciencespot.net/Pages/classmetric.html Use Appendix C and a measuring cup. Activity 2- Appendix B Measure and record volume
	Lesson 3- Measuring Mass	Activity 1- Print metric flashcards from http://www.sciencespot.net/Pages/classmetric.html and use charts on Appendix C Activity 2- Predict and weigh various classroom objects. Appendix C
	Lesson 4- Measuring Density	Activity 1- Go to www.explorelearning.com Select Science3-5, then Measurement skills, then Density. Worksheet Content Essentials for Science B, Black line Master 77-78 Activity 2- Appendix F Objects that float or sink Activity 3- Appendix E- Experimenting with Buoyancy and Density



Unit Plan - ELD Science and Technology

Grade: 8

Strand: Understanding Matter and Energy

Title: Fluids

Overall Expectations	Big Ideas
<ol style="list-style-type: none">1. Analyse how the properties of fluids are used in various technologies, and assess the impact of these technologies on society and the environment;2. Investigate the properties of fluids;3. Demonstrate an understanding of the properties and uses of fluids	<p>Fluids are an important component of many systems. (Overall Expectations 1, 2, and 3)</p> <p>Fluids have different properties that determine how they can be used. (Overall expectations 1, 2, and 3)</p> <p>Fluids are essential to life. (Overall expectation 3)</p>



Specific Expectations	Specific Expectations Modified
<p>3.2 Describe the relationship between mass, volume, and density</p> <p>3.5 Determine the buoyancy of an object, given its density, in a variety of fluids (<i>e.g., less dense objects float, more dense objects sink</i>)</p>	<p>Differentiate between mass, volume and density of an object and their units of measurement.</p> <p>Explain why a particular object/item will sink or float and illustrate and/or demonstrate this process.</p>
<small>*Curriculum expectations may not be appropriate for all students who are learning the language, especially those who are in the early stages of second language development.</small>	
Links to Prior Knowledge	Students may have acquired the skills of:
Students may have first-hand experience or knowledge about one or more of the following:	
<p>-students may have an intuitive familiarity with liquids, solids, and gases, and a basic understanding of the metric system, (grams and litres).</p>	
<p>-they also may be able to predict which objects will sink or float.</p>	<ul style="list-style-type: none">- classifying items- estimate- completing cloze sentences



Modified Activities for ELD

Lesson 1: States of Matter

In this lesson the students will review the 3 states of matter and learn that only two of these three are called fluids

Activity 1: (CES Level B -student's handbook page 158-159). For more visuals, go to <http://science.pppst.com/matter.html> and click on Three States of Matter.

Activity 2: Have students classify items as solids, liquids and gases with pictures using Appendix A

Activity 3: Measuring Matter -To introduce the activity on measuring matter have the students watch the Power Point at (<http://www.schools.pinellas.k12.fl.us/educators/tec/Davis2/matter.pt/sld001.htm>)

Then the students will be asked to read the lesson on "Measuring Matter" in order to understand and differentiate between the mass, volume and density of an object CES Level B -student's handbook pgs.160-163).

Lesson 2: Measuring Volume

Activity 1:

You will likely want to print the metric flashcards from <http://www.sciencespot.net/Pages/classmetric.html> and under Game Cards print Back of Cards. Students can try to fill in the blanks with the millilitre cards using the charts on Appendix C

At this point, the teacher can assess student's knowledge of the metric system (specifically units of measure for volume) and show devices for measuring the volume of liquids (measuring cup).

Activity 2:

Before asking the students to measure different items in terms of their volume, an estimation game can be played. For example, the teacher will ask students to estimate how many millilitres of water

Vocabulary/Language Prompts

Matter, liquid, solid, gas, tornado, tree, sun, iron, water, bubble, soup, steak, cloud, helmet, measure, metric system, mass, volume, density

Juice box, glass of water, pitcher of water, cup of coffee, pot of tea, can of soda, carton of milk, millilitres, litres



will fit into the teacher's Tim Horton's coffee cup. The students will use Appendix B to guide and record their measuring of volume.

Lesson 3: Measuring Mass (similar to Lesson 3 Activity 1)

Introduce the metric units used to measure mass.

Activity 1: You will want to print the metric flashcards from <http://www.sciencespot.net/Pages/classmetric.html> and under Game Cards print Back of Cards. Students can try to fill in the blanks with the gram cards using the charts on Appendix C.

Activity 2: After getting the students to measure different items in terms of their mass, the estimation game can be played with grams.

For example, the teacher or peer will ask students what they predict a classroom object (i.e., a stapler) will weigh. The students with the closest guess get points or treats. Then using Appendix C the students will predict, and then observe and record the weight of various objects.

Gram, milligram, kilogram, calculator, lunch bag, box of crackers, orange, yogurt, cup of sugar, sandwich, cookie

Lesson 4: Measuring Density

Have students take a look at CES Level B, page 162. Note that the two balls have the same volume but a different weight (mass). Which one is denser, heavier?

Activity 1: Students can go online to www.explorelearning.com and under Science Gr3-5, they click on Measurement skills. There is a Gizmo entitled Density. First they have to weigh the object, and then put it in a beaker which demonstrates the volume by seeing how much water is displaced. They can then guess if it will sink or not. The lighter objects, which displace less water, will float. Because this admittedly difficult concept is visual, they may get the connection with water displacement. If they only understand that heavy objects sink, that is fine too.

If you wish, students can complete the two worksheets on the CES Level B -Black line Masters-pages77-78. The teacher or peer can

Float, sink, plastic teaspoon, mug, comb, sunglasses, paperweight, straw, running shoe, coins, bottle of paint, can of soda, metal spoon, juice box,



read the sentences and the students can just choose the missing words. (as in an oral cloze sentence exercise)

Activity 2:

In this activity, the students will have a chance to test the buoyancy of different substances (solids, gases, and liquids) in water. Students will also classify the items into two categories—"floating" or "sinking". At the end of the activity, they will likely come to the conclusion that the objects that are heavier than water (denser) will sink, and the objects that are lighter will float.

See appendix F

Activity 3:

This extra experiment deals with testing buoyancy and density. See Appendix E



Assessment of Learning	Assessment for Learning	Assessment as Learning
<ul style="list-style-type: none">• Peer assessment• Teacher rubric• ESL Support teacher assessment using L1 if possible• Re-telling• Role plays/demonstrations	<ul style="list-style-type: none">• Teacher observations including anecdotal• Student teacher conferences• Peer groupings• Cloze exercises• Sequence and matching exercises	<ul style="list-style-type: none">• ESL Buddy Assessment• Self assessment checklist

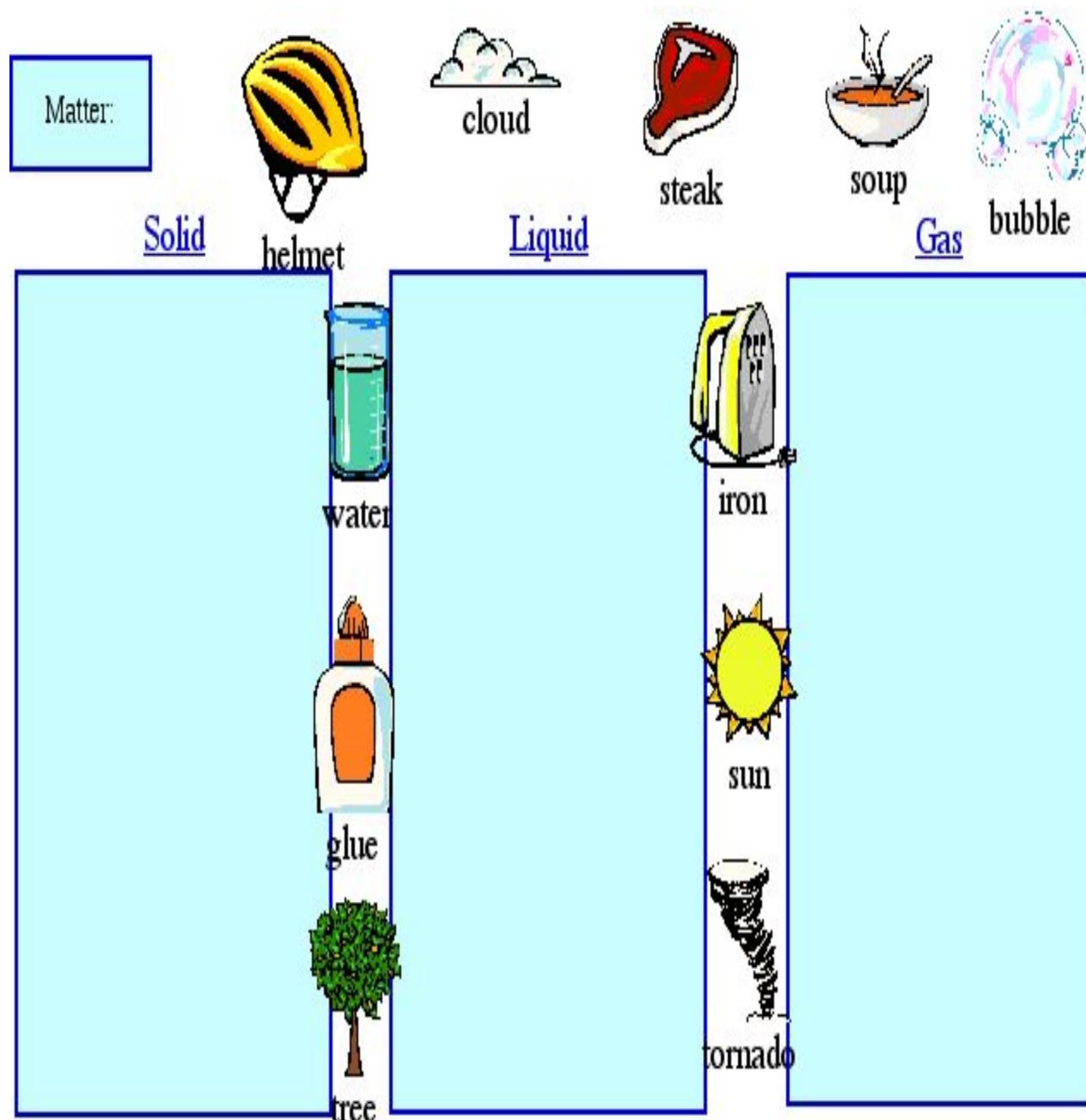
Levels of Thinking and Language Function <i>Appraise, assess, attach, choose, compare, defend, estimate, judge, predict, select, support, value, evaluate</i>	Preproduction (non verbal response) PROMPTS: <i>Show Me, Circle the, Where is, Who has, Draw, Label</i>	Early Production (one word response) PROMPTS: <i>Yes/No, Either/Or, Who, What and How</i>	Speech Emergence (Phrase or short sentences) PROMPTS: <i>Why, How, Explain, questions requiring a short sentence response</i>
Evaluation <i>Arrange, assemble, collect, compose, construct, create, design, develop, formulate Manage, organize, plan, prepare, propose, set up</i>	Assess Rate Select Choose Attach	+ Compare Estimate Value	+ Predict Evaluate Examine Judge
Synthesis <i>Analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test</i>	Plan Construct Collect Assemble Arrange	+Organize Set up Design	+ Create Compose Develop Formulate
Analysis <i>Analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test</i>	Categorize Test Examine	+ Contrast Experiment Differentiate	+ Compare Criticize Discriminate Question Distinguish
Application <i>Apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use</i>	Dramatize Choose Illustrate Practice Sketch	+ Demonstrate Employ Schedule	+ Apply Interpret Operate Use Solve
Comprehension <i>Classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, translate</i>	Classify Locate Select	+ Describe Identify Indicate Recognize	+ Express Restate Review
Knowledge <i>Arrange, order, define, duplicate, label, name, recognize, relate, recall, repeat, reproduce</i>	Label Order Arrange Draw Match	+ Name Recognize Repeat	+ Define Reproduce Recall

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Appendix A

Classify the following items in the correct column:





Appendix B Measuring Volume with a Measuring Cup

10 milliliters (ml) = 1 centiliter

10 centilitres = 1 deciliter = 100 milliliters

10 deciliters = 1 liter = 1,000 milliliters

10 liters = 1 dekaliter

Predict

Observe

Juice box

Glass of water

Pitcher of water

Cup of coffee

Pot of tea

Can of soda

Carton of milk



Appendix C Measuring Mass with a Kitchen Scales

10 milligrams (mg) = 1 centigram

10 centigrams = 1 decigram = 100 milligrams

10 decigrams = 1 gram = 1,000 milligrams

10 grams = 1 dekagram

10 dekagrams = 1 hectogram = 100 grams

10 hectograms = 1 kilogram = 1,000 grams

Predict

Observe

Cup of sugar

Sandwich

Yogurt

Orange

Box of crackers

Lunch bag (full)

Calculator

Pencil



Appendix E

Buoyancy: What will float and what will sink

Objectives:

The students will be able to verbally explain why a particular object/item will sink or float. They will also be able to illustrate and/or demonstrate this process. This assignment will either introduce graphing or enhance a student's graphing skills, as well as their critical thinking skills.

Materials Needed:

1 Large Clear Container - filled with water

2 Balloons of the same color (one filled with water and one filled with air but close to the same size)

1 Regular Coke

1 Diet Coke

Fruit: two of each of the following: pear, apple, orange, nectarine, banana, lime, potato, plum, tomato, lemon, etc.

Enough copies of a graphing chart of which fruit will float and which will sink

1 Roll of aluminum foil

100 pennies

Strategy:

You need a container of water and two balloons of the same color. (One is filled with water and the other with air. DO NOT INFORM THE STUDENTS OF THE BALLOONS CONTENTS). At this time, show the students the two balloons and ask them what they think will happen? (Place the two balloons in the container while listening to the student's observations). POSSIBLE ANSWERS: One sunk because of its weight, one balloon was bigger than the other, and one is filled with water and one with air.

Continue with the two pop cans. Show the class, two 12oz pops, one being diet and the other regular. Ask them they think will happen while placing both cans into the container of water? Then place the two cans of pop into the container of water, they will note that one floats and the other doesn't. Ask why? Then, explain what



happened. Diet coke contains nutra-sweet and regular coke contains corn syrup. Corn syrup is denser than the nutra-sweet that is in the diet coke; therefore, the diet coke was able to float more than the regular coke. Cheap pop may float- not enough corn syrup.

Then introduce the class to the different kinds of fruit. They can all come up with their chart and pencil to make a prediction about which fruit will sink and which fruit will float. Then, have them try each fruit in the water and see what happens. The group can make a bar graph with drawings of the floating fruit on one horizontal bar along the water level of a beaker and drawings of sinking fruit on another bar along the bottom of a beaker or swimming pool. If you are a talented artist, have the sinking fruit holding its breath or wearing a scuba tank, while the floating fruit has sunglasses and little air mattresses. This way the students will have a visual graph of what floats and what sinks. (The teacher must do the experiment himself/ herself to find out these results in advance.) Afterwards, the students are free to enjoy a piece of fruit. Now, the floor is open for discussion as to what floated and what didn't and why.

All the students will come back up and make a boat or a floating object, out of foil. Then, they will place their floating device in the container of water to make sure it floats. If it floats, they will see how many pennies it can hold before sinking. They will write down their results and sit down and as a group they can talk about their findings. Eureka!



Appendix F Weigh and write down all the items you are testing and then classify them in the table below.

-mug ____mg	-popsicle sticks ____mg	- can of soda ____mg
-plastic teaspoon ____mg	-legos ____mg	-juice box ____mg
-comb ____mg	-metal spoon ____mg	-slice of white bread ____mg
-sunglasses ____mg	-straw ____mg	-same slice of bread squeezed into a ball ____mg
-paperweight ____mg	-running shoe ____mg	
-pencil ____mg	-bottle of paint ____mg	
-box ____mg	-coins ____mg	-

Object or substances that sank	Objects or substances that floated



Word Wall for Gr 8 Fluids Unit

mug

bottle of paint

orange

plastic teaspoon

popsicle sticks

lego(s)

box of crackers

grams

comb

glue

sunglasses

lunch bag (full)

litres

paperweight

carton of milk

tree

pencil

calculator

milligrams

box

tornado

predict

pencil case

soup

observe

metal spoon

steak

cup of sugar

metric system

millilitres

straw

helmet

sandwich

cloud

running shoe

can of soda

yogurt

sun

iron

juice box

cup of coffee

glass of water

pot of tea

pitcher of water



SCIENCE UNIT INTRODUCTORY PAGE

Grade 8- Understanding Earth And Space Systems

Strand	Reference	Materials
Understanding Earth And Space Systems-Water	Lesson 1-Water Usage	<p>Activity 1-Water conservation around the house game. http://www.ecokids.ca/pub/games_activities/water/index.cfm</p> <p>Activity 2- Venn Diagram - In which rooms are water used in a Canadian house, where is water used in homes in your country. Note similarities and differences.</p>
	Lesson 2-Water cycle	<p>Activity 1- Label water cycle diagram at www.kidzone.ws/water/</p> <p>Activity 2-Watch Power point Wonderful Water at www.science.pppst.com/watercycle.html</p>
	Lesson 3- Water Water Everywhere	<p>Activity 1- View power point Great Water at www.sciencenorth.ca/media/mo3motgle/inter-lesson</p> <p>Activity 2</p> <p>http://ga.water.usgs.gov/edu/earthwherewater.html</p> <p>Print page," Where is the earth's water located?"</p>
	Lesson 4- Keep Water Clean	<p>Activity 1- Interactive games about water pollution.</p> <p>http://www.kids.niehs.nih.gov/jvtoxic.htm</p>



Unit Plan - ELD Science and Technology

Grade: 8

Strand: Understanding Earth and Space Systems

Title: Water Systems

Overall Expectation	Big Ideas
<p>1. Assess the impact of human activities and technologies on the sustainability of water resources;</p> <p>2. Investigate factors that affect local water quality;</p> <p>3 Demonstrate an understanding of the characteristics of the earth's water systems and the influence of water systems on a specific region.</p>	<p>Water is crucial to life on Earth. (Overall expectations 1 and 2)</p> <p>Water systems influence climate and weather patterns. (Overall expectation 3)</p> <p>Water is an important resource that needs to be managed sustainably.(Overall expectations 1 and 2)</p>
Specific Expectations	Specific Expectations Modified
<p>1.1 Evaluate personal water consumption, compare it with personal water consumption in other countries, and propose a plan of action to reduce personal water consumption to help address water sustainability issues</p> <p>2.4 Use scientific inquiry/research skills (see page 15) to investigate local water issues</p> <p>2.6 Use appropriate science and technology vocabulary, including <i>water table</i>, <i>aquifer</i>, <i>polar ice-cap</i>, and <i>salinity</i>, in oral and written communication</p>	<p>Compare home water use here and in your country</p> <p>Discuss and explain how human activities affect water and suggest ways to reduce water pollution</p> <p>Use appropriate science vocabulary including: the water cycle, condensation, evaporation, accumulation and precipitation.</p> <p>Identify the various states of water on the earth's surface</p>



3.1 Identify the various states of water on the earth's surface, their distribution, relative amounts, and circulation, and the conditions under which they exist (*e.g., water is a solid in glaciers, snow, and polar ice-caps; a liquid in oceans, lakes, rivers, and aquifers; and a gas in the atmosphere*)

*Curriculum expectations may not be appropriate for all students who are learning the language, especially those who are in the early stages of second language development.

Links to Prior Knowledge

Students may have first-hand experience or knowledge about one or more of the following:

- familiarity with boiling water and therefore steam (i.e., tea, cereal, soup)
- rainfall and evaporation
- the importance of clean water and sometimes of the scarcity thereof.



Modified Activities for ELD

Lesson 1

The students will orally compare water use in their country and here.

Activity 1

Students will play an on-line game found at:

www.ecokids.ca/pub/games_activities/water/index.cfm

then click on "Water Conservation Around the House" They will note all the places in the home and all the ways in which water is used in homes in Canada. This may be quite different from the customs around water usage in their countries of origin.

Activity 2

A comparison would be in order. A Venn diagram with the rooms where water is used that are the same would be in the middle and the rooms in Canada only on one side, while the rooms in their country only on the other.

Lesson 2

In this lesson the students will familiarize themselves even more with the terminology related to the water cycle.

Students will read the lesson from the textbook on "The Water Cycle" ([Content Essentials for Science Level B](#), p126-127).

Activity 1

Students will individually label the Water Cycle Diagram either on p61 BLM or on the worksheet that can be downloaded at: www.kidzone.ws/water/bactivity1.html

Vocabulary/Language Prompts

Water system, water cycle, ice, vapour, accumulation, condensation, collection, precipitation, groundwater, global, local, manage, water table, aquifer, polar ice-cap, salinity, distribution, circulation, geographic, glacier, atmospheric, condition,



Activity 2

Students can watch the power point entitled Wonderful Water which can be found free online at www.science.pppst.com/watercycle.html There is an Interactive Water Cycle at the same website under Free Games and Learning Activities for Kids.

Lesson 3

Where is the Earth's water and which forms does it take?

Activity 1

Begin with viewing the power point at www.sciencenorth.ca/media/mo3motgle/nter-lesson and viewing Mysteries of the Great Lakes Junior Lesson 2, entitled Great Water. Much discussion could ensue. Some ideas are noted here below. And there is a teacher's kit that could be downloaded.

Activity 2

Using the

<http://ga.water.usgs.gov/edu/earthwherewater.html> website, print the page "Where is the Earth's water located?". The students will locate the oceans on the map, as well as the Great Lakes and glaciers. The teacher or a peer will emphasize the fact that even if water covers 70% of the earth's surface, only 1% of that is usable. Also, note the importance of living near the Great Lakes as a source of freshwater (as compared to the oceans which provide salt water). Students will learn the names of the 5 Great Lakes and the way they serve as a transportation connection with the entire world, a source of food (fishing) and also a source of energy (talk about Niagara Falls which is not just a great source of water for humans.)



Lesson 4

Students will discuss about the importance of keeping water clean and the implications of water pollution. Discuss different ways human activity affects the water system and what we must do to keep it clean.

Activity 1 Students can choose (or the teacher can decide) which of the interactive on line games they will play. Go to <http://www.kids.niehs.nih.gov/jvtoxic.htm>



<i>Assessment of Learning</i>	<i>Assessment for Learning</i>	<i>Assessment as Learning</i>
<ul style="list-style-type: none"> • Peer assessment • Teacher rubric • ESL Support teacher assessment using L1 if possible • Re-telling • Role plays/demonstrations 	<ul style="list-style-type: none"> • Teacher observations including anecdotal • Student teacher conferences • Peer groupings • Cloze exercises • Sequence and matching exercises 	<ul style="list-style-type: none"> • ESL Buddy Assessment • Self assessment checklist

Levels of Thinking and Language Function	Preproduction (non verbal response) PROMPTS: Show Me, Circle the, Where is, Who has, Draw, Label	Early Production (one word response) PROMPTS: Yes/No, Either/Or, Who, What and How	Speech Emergence (Phrase or short sentences) PROMPTS: Why, How, Explain, questions requiring a short sentence response
Evaluation <i>Appraise, assess, attach, choose, compare, defend, estimate, judge, predict, select, support, value, evaluate</i>	Assess Rate Select Choose Attach	+ Compare Estimate Value	+ Predict Evaluate Examine Judge
Synthesis <i>Arrange, assemble, collect, compose, construct, create, design, develop, formulate Manage, organize, plan, prepare, propose, set up</i>	Plan Construct Collect Assemble Arrange	+Organize Set up Design	+ Create Compose Develop Formulate
Analysis <i>Analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test</i>	Categorize Test Examine	+ Contrast Experiment Differentiate	+ Compare Criticize Discriminate Question Distinguish
Application <i>Apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use</i>	Dramatize Choose Illustrate Practice Sketch	+ Demonstrate Employ Schedule	+ Apply Interpret Operate Use Solve
Comprehension <i>Classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, translate</i>	Classify Locate Select	+ Describe Identify Indicate Recognize	+ Express Restate Review
Knowledge <i>Arrange, order, define, duplicate, label, name, recognize, relate, recall, repeat, reproduce</i>	Label Order Arrange Draw Match	+ Name Recognize Repeat	+ Define Reproduce Recall

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