Unit 1: Human impact on the environment
Guided note taking

This file will guide you as you work through the learning activities in this unit. You may download this file and print it. Choose the method that works best for you.

Learning Activity 1.1

Name of the threat to biodiversity:	
What are the causes?	
What are the effects on the environment?	
What are the effects on humans?	
What do you think can be done to minimize this threat?	

Evaluating leisure and tourism activities

What are the possible negative impacts on the environment?	
How can the activity be more environmentally friendly?	
What are the possible positive impacts on the environment?	

Learning Activity 1.2

Name of the area where water is used:	
Draw an image or flow chart to show how water is used in this area and moves to other parts of the water cycle.	
What are the potential negative impacts of how water is used in this area?	
Can you list any other ways water is used in this area?	

Careers

	Lifeguards	**Water-treatment plant operator**
What are the day-to-day duties?		
What education is required?		
What is the purpose of water testing in this job?		

Consolidation

Use this graphic organizer to create your lab report. Once complete, submit to the assignment dropbox.

Problem *State the problem or question you are investigating.*
To compare the water quality of Sites 2 and 3.

Hypothesis and rationale *Indicate whether you expect the water quality to be better at one site than another and explain why.*

Observation table *Record the observations for each test.*		
Test	**Site 2**	**Site 3**
Description		
Macroinvertebrates		
pH		
Dissolved oxygen		
Turbidity		
Temperature		
Riparian plant life		
Aquatic plant life		

Results and discussion *After you have compared your observations for the two sites, you will need to describe the results and explain why you think you got those results.*

Conclusion *In your conclusion, you will indicate which site has the better water quality (if one is better than the other) and whether or not your hypothesis was correct.*

Learning Activity 1.3

Article title:	
What is the regulation or law being put in place?	
What are the environmental benefits of this regulation or law?	
Who might be opposed or get frustrated with this regulation or law? Why?	
Which law or regulation offers the most benefits for soil quality? (*Note: Discuss this question with your partner and come to an agreement.)	

Practice activity: Sample waste audit

Organic material	Paper recycling	Container recycling	Trash or garbage
- fruit peels - leftovers coffee grounds and filter - tea bags	- newspapers paper-towel roll - cardboard box	- plastic bottles - milk carton - yogurt container	- plastic package - tin foil - bubble wrap
Total mass: 1.3 kg	**Total mass:** 0.7 kg	**Total mass:** 0.9 kg	**Total mass:** 0.5 kg

Total mass of all waste:	
Percentage by mass of organic material:	
Percentage by mass of paper recycling:	
Percentage by mass of container recycling:	
Percentage by mass of trash:	

Activity: Reducing your waste

Fill in the table by listing the material in each category and adding up the mass. Then, using a calculator, figure out the % of total mass for each category.

Organic material	**Paper recycling**	**Container recycling**	**Trash or garbage**
Mass:	**Mass:**	**Mass:**	**Mass:**
% of total mass:	**% of total mass:**	**% of total mass:**	**% of total mass:**

Consolidation

Use this graphic organizer to create your lab report. Then post it to the discussion board.

Problem *State the problem or question you are investigating.*
To compare the quality of soil at Site 1 and Site 2.

Hypothesis and rationale *Indicate whether you expect the soil quality to be better at one site than another and explain why.*

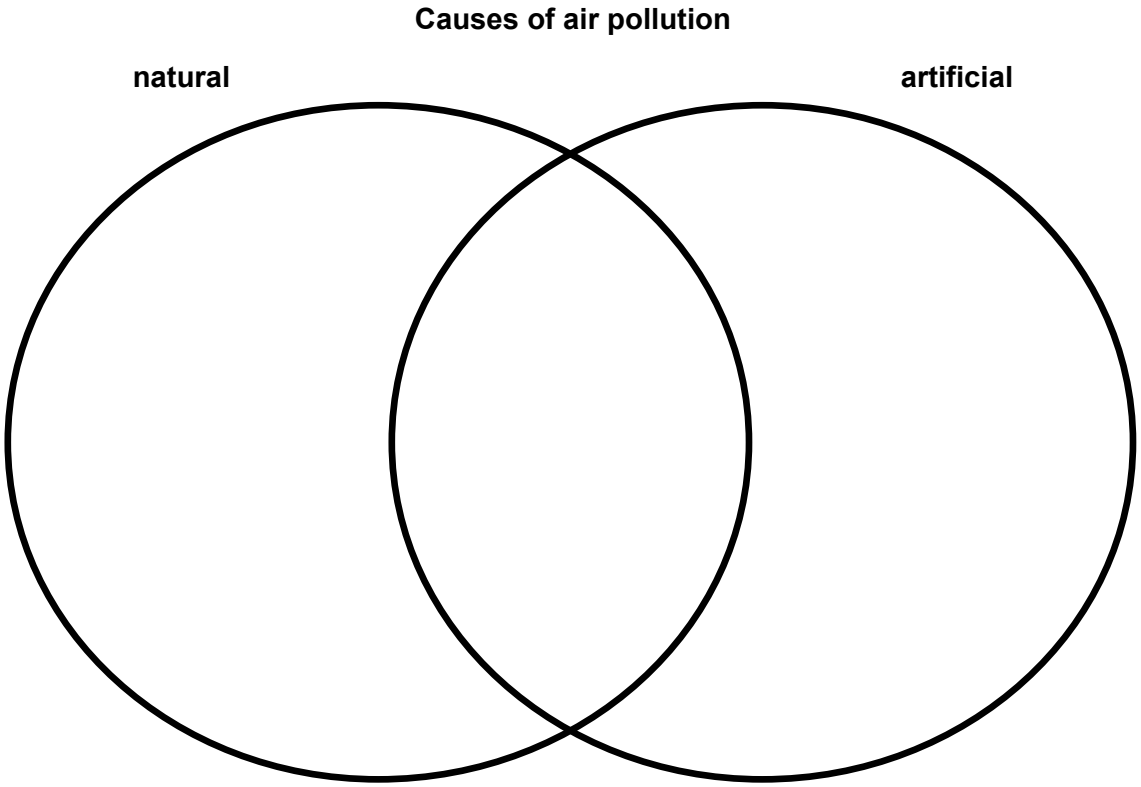
Observation Table *Record the observations for each test.*		
Test	**Site 1- Forest**	**Site 2- Home Garden**
Soil colour and texture		
Macro-organisms/ earthworms		
pH		
Soil density		
Percolation rate and water-holding capacity		

Results and discussion *After you have compared your observations for the two sites, you will need to describe the results and explain why you think you got those results.*

Conclusion *In your conclusion, you will indicate which site has the better soil quality (if one is better than the other) and whether or not your hypothesis was correct.*

Learning Activity 1.4

Minds On



Air quality

How can you use the AQHI to know when the air is unhealthy?	
What should people at increased risk do when the health risk is high or very high?	
What should the general population do when the health risk is high or very high?	

Analyzing data on fine particulate matter

Name of city	
What is the annual mean concentration of $PM_{2.5}$ in this city?	
What are 2-3 reasons why this city would have such a high mean value?	
Compare your city to Windsor, the Ontario city with the highest mean value. What do these cities have in common which cause them to have high $PM_{2.5}$ values?	

Researching environmental problems

Title	
Issue	
Things that local and provincial governments could do to reduce pesticide and fertilizer runoff	
Things you can do to reduce pesticide and fertilizer runoff	
Sources of information	