

Students: Please fill out this worksheet as you explore our exhibit halls.

LEVEL

## 6 Forest Lane

### Section A

#### Can You Name These Trees?

Topic: Habitats and Communities

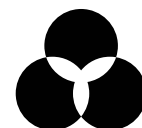
- A1.** Sketch one deciduous leaf (from a tree with leaves) and one coniferous leaf (from a tree with needles).



Deciduous Leaf

Coniferous Leaf

- A2.** How have evergreen needles adapted to cold climates? Come up with your own theory, look it up online, or ask a friend or Science Centre Host. Hint: Sunshine is very important for photosynthesis.



## Section B

### Bigger Isn't Always Older

Topic: Habitats and Communities

**B1.** Observe and sketch each tree's cross-section and rings.



40-year-old tree



200-year-old tree



**B2.** How much time does one set of rings represent?

**B3.** Which tree's rings are closer together?

**B4.** What does the closeness of the rings indicate about the tree's habitat?

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## Cohon Family Nature Escape

### Section C

#### Urban Forest

Topic: Habitats and Communities

- C1.** The Cohon Family Nature Escape is an urban forest ecosystem. What makes it an urban forest?
  
- C2.** If you were a raccoon, would you like to live in an urban forest? Why or why not?



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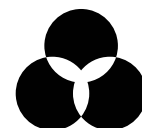
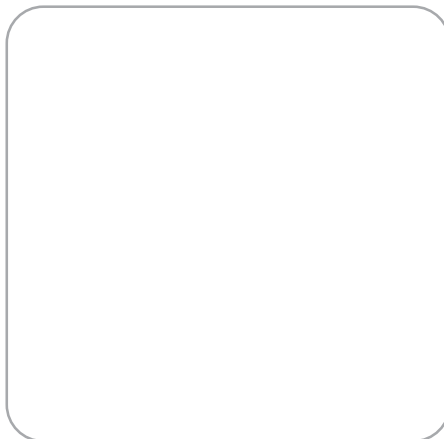
## Weston Family Innovation Centre

### Section D

#### Take a Look

Topic: Rocks, Minerals and Geological Processes

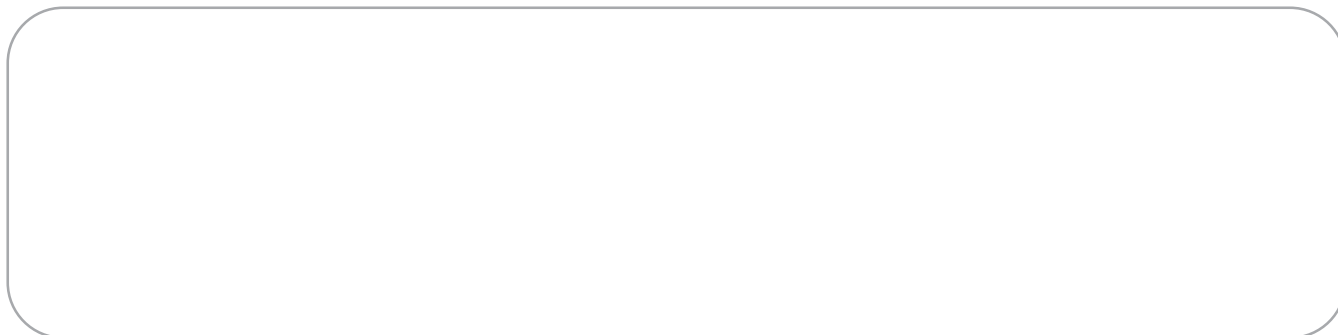
- D1.** Examine two different minerals with the microscope. Sketch them below, and label or describe their physical properties (size, colour, lustre, shape, texture, etc.).



## Section D (cont.)

**D2.** Find the cassiterite mineral sample that came from a stream. How is it different from the other two samples? (Hint: Think about the effects of water.)

**D3.** Use the microscope to examine the beach sand. Draw or describe what you see.



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## The Bruce Poon Tip Living Earth Hall

### Section E

#### The TELUS Rain Forest

Topic: Habitats and Communities

**E1.** Describe what the Rain Forest looks and feels like.



**E2.** How is the Rain Forest different from a forest in Ontario?



## Section E (cont.)

**E3.** Many rainforest plants compete with one another for light. Look at the plants around you and describe two adaptations that would help them absorb as much sunlight as possible.

1.

2.

## Section F

### Cool Formations

Topic: Rocks, Minerals and Geological Processes

**F1.** Which of the following are real names for cave formations? Circle your answers:

Cave Sausages

Cave Bacon

Cave Pearls

Cave Swine



## Section G

### Fossilized Limestone

Topic: Rocks, Minerals and Geological Processes

**G1.** Find the fossilized limestone. What does it tell you about Ontario's history? Hint: It contains honeycomb coral.



## Section H

### Caves Capture Our Changing Climate

Topic: Rocks, Minerals and Geological Processes

**H1.** What do stalagmites have in common with tree rings?

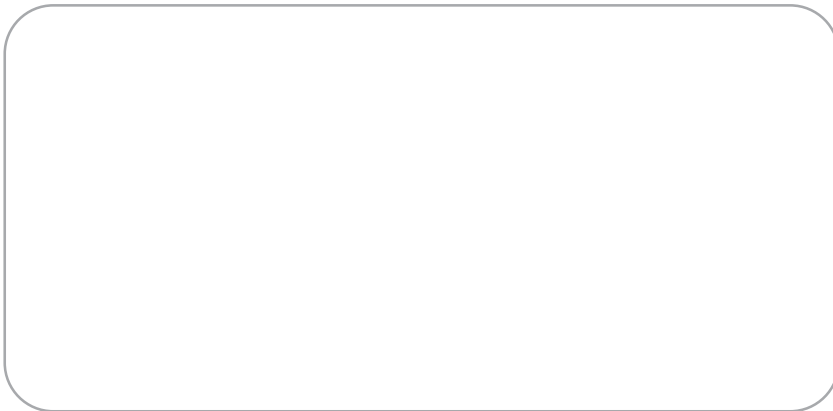


## Section I

### Scalloped Limestone

Topic: Rocks, Minerals and Geological Processes

**I1.** Sketch (and touch) the scalloped limestone:



**I2.** What causes the dimples in the limestone?

**I3.** Limestone is an example of a sedimentary rock. How was it formed?

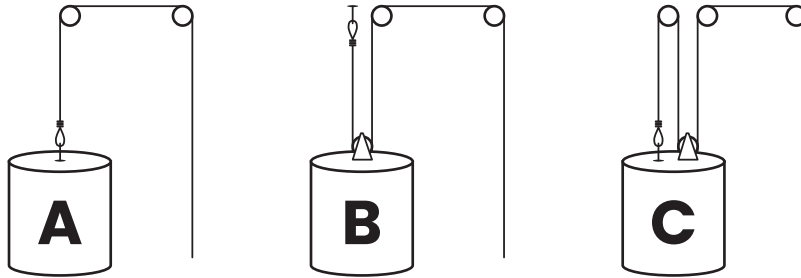
LEVEL

## 6 Science Arcade

### Section J

#### Pulleys

Topic: Machines and Their Mechanisms



**J1.** Which load takes the least amount of force to lift?

A                      B                      C

**J2.** Which load takes the most amount of force to lift?

A                      B                      C

**J3.** Estimate how far you need to pull to lift each weight by 30 cm.

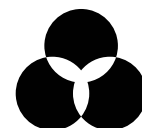
**i.** To lift weight A by 30 cm, I need to pull \_\_\_\_\_ cm.

**ii.** To lift weight B by 30 cm, I need to pull \_\_\_\_\_ cm.

**iii.** To lift weight C by 30 cm, I need to pull \_\_\_\_\_ cm.

**J4.** Why does each pulley system require a different amount of force to lift 6 kg of weight? (Hint: Count the number of pulleys in each system). Why does each one feel different?

**J5.** Other than our exhibits, where else at the Science Centre could you find pulleys?  
Hint: You might not be able to see all of them.



## Section K

### The Shadow Maker

Topic: Light and Sound

**K1.** Leave your shadow behind and draw it below:



**K2.** The walls of the tunnel absorb light energy and release it slowly. What other objects could be made from the same material? Hint: Think of things that glow in the dark.

**K3.** What would happen if the walls in this exhibit reflected light energy instead of absorbing it and then slowly releasing it?

## Section L

### The Quiet Tunnel

Topic: Light and Sound

**L1.** Use the decibel meter to record the sound levels inside and outside the tunnel.

Inside tunnel: \_\_\_\_\_

Outside tunnel: \_\_\_\_\_

**L2.** Try talking to a friend. Why is your voice different inside the tunnel?





## Section L (cont.)

- L3.** Apply what you have learned: Why does a crowded cafeteria or gymnasium seem so noisy? Hint: Think about the material of the floors and walls.

## Section M

### Musical Metal

Topic: Light and Sound

- M1.** Predict which rod will have the lowest pitch. Explain your reasoning.



- M2.** Try playing a song you know. You may team up with a friend if you'd like. How did you do?

- M3.** Try again on the steel drums next door. Which instrument did you find easier, and why?