

Melodies at the Gardens! (Upper Primary)

Instructions and Answers for Teachers

Duration: approx. 1h 30 min

Note to Teachers:

Follow this guide to conduct this programme at the Cloud Forest with your students.

Items to bring:

- (i) A pen
- (ii) Coloured pencils for drawing of soundscape

Route:

Cloud Forest entrance → Waterfall → take lift up to level 6 followed by the stairs to Lost World → Venus Flytrap and Pitcher Plant at Lost World → take Cloud Walk and escalator down to Crystal Mountain / Cave → Bat sounds at Crystal Cave → take escalator down to +5 degrees → watch +5 degrees video → complete crossword and explanation at the Canopy seats.

AT THE CLOUD FOREST

1. The Falls (15min)

Listen to the sounds of the waterfall.

- (i) Describe the sounds made by the waterfall using sound words / onomatopoeia (e.g. splash) or adjectives.

Answer:

Splash, swoosh, loud or any other adjectives.

Explain to students "onomatopoeia" means "sound words" if needed.

- (ii) Do you consider these sounds made by the waterfall as music? Why or why not?

Answer:

No - because it does not contain a melody or does not follow the structure of a music piece.

Yes - because it sounds soothing and it makes me happy.

(Ancient Chinese philosophers such as Lao Tzu viewed the sounds of nature as music. Some modern composers also incorporate sounds of nature into their compositions)

- (iii) Can you name any instrument that makes the sound of falling water? (Refer to the last page on how to make this instrument at home)

Answer:

Rainstick - Percussion instrument

(Other families of instruments include woodwinds, brass, strings, keyboard)

2. Lost World – Venus Flytrap (10 min)

- (i) Observe the features of the Venus Flytrap. It has special modified leaves with tiny hairs. When an insect lands on it and touches its hairs, the leaves will snap shut, trapping the insect. The trapped insect will then become food for the plant!

Which musical instrument does its "snapping action" resemble?

Answer:
Castanet

- (ii) Which family of instruments does this instrument belong to?

Answer:
Percussion

3. Lost World – Pitcher Plant (15min)

- (i) Observe the features of the Pitcher Plant. It has modified leaves that resemble pitchers. The inner wall of the "pitcher" is slippery. When insects slip and fall in, they will drown in the liquid and become food for the plant! Which instrument does the shape of the Pitcher Plant resemble?

Answer:
Saxophone or trumpet (resembles the bell part of the instrument)

- (ii) Name a type of music this instrument plays.

Answer:
Jazz / classical / band music / pop

- (iii) Would you describe the sound of this instrument as nasal or full? Why do you think it sounds this way?

Does it have anything to do with the shape of the instrument?

Answer:
It should sound nasal. This is due to the conical shape of the instrument, as compared to a cylindrical bore. The cone-shaped bores of instruments such as the saxophone, trumpet and oboe create a nasal sound. Instruments such as the clarinet and flute create a rounder and fuller sound.

Teacher may also demonstrate the quality of a nasal sound by speaking while pinching one's nose and demonstrating a full sound by sounding the vowel "O".

4. Crystal Mountain (20min)























- (i) Name the sounds that you can hear in this place. Describe the feeling it gives you.

Answer:
Sounds of water dripping, bats / animals screeching / calling

- (ii) Create a soundscape based on some of the sounds that you can hear in this place. You may also add in your own sounds that fit well into the soundscape.

(An example is shown below. You may perform it with some friends upon completion of your soundscape.)

Answer:
A soundscape is a type of graphic notation (drawn out instructions to a performance as opposed to a music score)

Symbols	A Day at the Gardens			
				
				
				
				
				
				

The soundscape may also be visualised in free form without grid lines, as long as the students clearly show how the sounds interact and there is evidence of a variety of dynamics or sound quality (timbre) being used.

5. Bat Sounds (10min)

Bats use a technique called "echolocation" to hunt for prey. An echo is a reflection of sound, arriving at the listener some time after the direct sound.

- (i) Can you name some of the musical devices / effects that resemble echoing?

Answer:

Call and answer (antecedent and consequent) canon, round

Teacher can demonstrate a canon by asking students to start singing "I hear Thunder" and start singing with the group 2 bars after the group has started.

A round is a canon that can repeat indefinitely.

- (ii) Perform a short tune (e.g. Singapura) using some of the musical devices that resemble echoing.

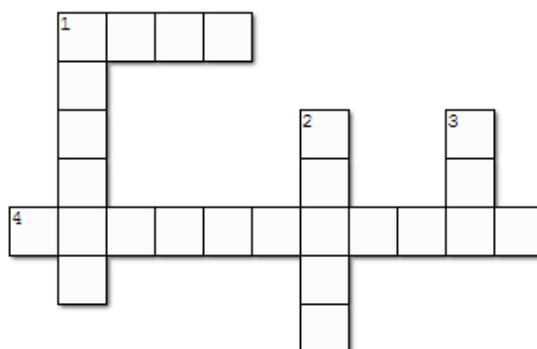
(Teacher may choose to conduct this activity back in school)

6. +5 Degrees (Pitch and Temperature) (20min)

Note: Answers are not found in the +5 degrees video. However, the relationship between a change in temperature and changes in the environment can be discussed with students, leading them to ponder if there are any relationships between temperature and pitch. The crossword helps students to uncover the relationships between the two.

Teacher may link this to P4 Science on "States of Matter" and "Sound Energy" to explain in detail to the students (where relevant).

Complete the crossword below.



Across

1. When the temperature is low, an instrument will tend to play **flat**.
4. **Temperature** has an important influence on pitch.

Down

1. The **faster** air molecules result in sound energy travelling faster.
2. When the temperature is high, an instrument will tend to play **sharp**.
3. Warm **air** molecules move faster, resulting in a higher pitch.

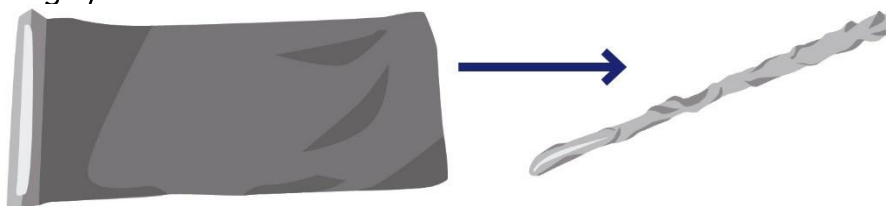
Hands-on Activity: Making Rainsticks

What you'll need:

- (i) Hand towel cardboard rolls / Badminton shuttlecock tube (otherwise, stick two short toilet paper rolls together to make a long cardboard roll)
- (ii) Aluminium foil
- (iii) 3 tbsp of rice
- (iv) *Optional items* - stick, glue and construction paper

Instructions:

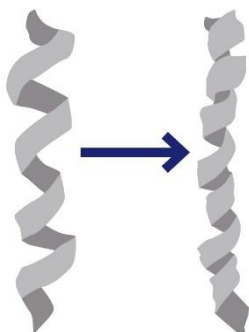
1. Tear a sheet of aluminium foil and crush it lengthwise into the shape of a long cylinder.



2. Wrap it around a long pencil to form a coil. Remove the pencil gently. The coil made should measure about the length of your cardboard roll / tube.



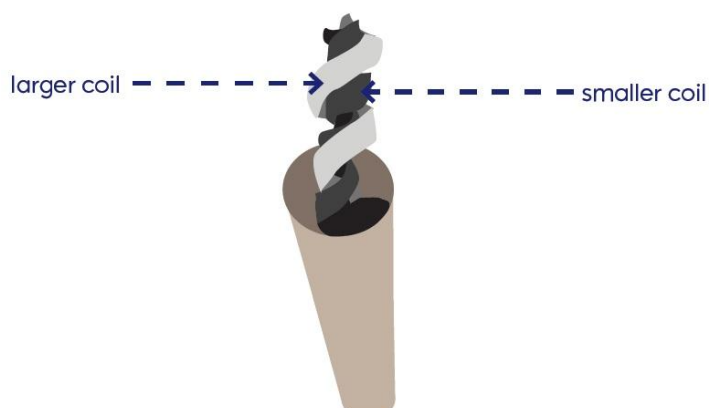
3. Create a second coil by repeating steps 1 and 2. This time, after removing the coil from the pencil, continue twisting the aluminium to create a tighter coil.



4. Place the smaller coil within the larger coil.



5. Place the two coils into the cardboard roll / tube.



6. Use glue or masking tape to secure the ends of the foil inside the tube about 1cm from opening.



7. After one end of the tube has been securely closed off, pour in some rice.



8. Secure both ends. Tip it slowly and enjoy the sounds of rain!



If there are no covers for your cardboard roll, create two covers using aluminium foil:

Trace and cut out two circles that are about 2cm wider in diameter than the circular openings of your cardboard roll. Place the covers over the openings and fold down the excess 2cm edges. Tape down the edges to secure them.

This activity sheet was developed in collaboration with Changkat Primary School.