Corporación Colegio San Bonifacio de las Lanzas	GUIA DE TRABAJO O TALLER, EVALUACION	Código: GA PA FR - 003 Versión: 00 Página: 1 de 3

Annex No: 2		
Title: Light Pollution	subject	
Student	Grade:	Date

Goal :"The students will distinguish the code structure and some properties of undulatory phenomena by creating animations with blocks about the impact of light and noise pollution in ecosystems"

Criteria	Assessment
Identifies the impact of noise and light pollution in ecosystems	
Explains the characteristics of light and sound waves based on their main properties	
Recognises how living things interact with light and sound in their natural habits	

The Importance of Light in an Ecosystem

1. Light and Nature's Alarm Clock: Every morning, when the sun rises, it's like an alarm clock for many animals and plants. It tells them it's time to wake up and start their day. Birds begin to chirp, bees start buzzing, and plants open their leaves.



2. Insects and Light: Some insects, like moths, are super attracted to light. Have you ever noticed how they circle around lights at night? That's because they think it's moonlight and are trying to use it to find their way. **Studies have shown that all high frequency lights, like UV light, directly attract some insects.**



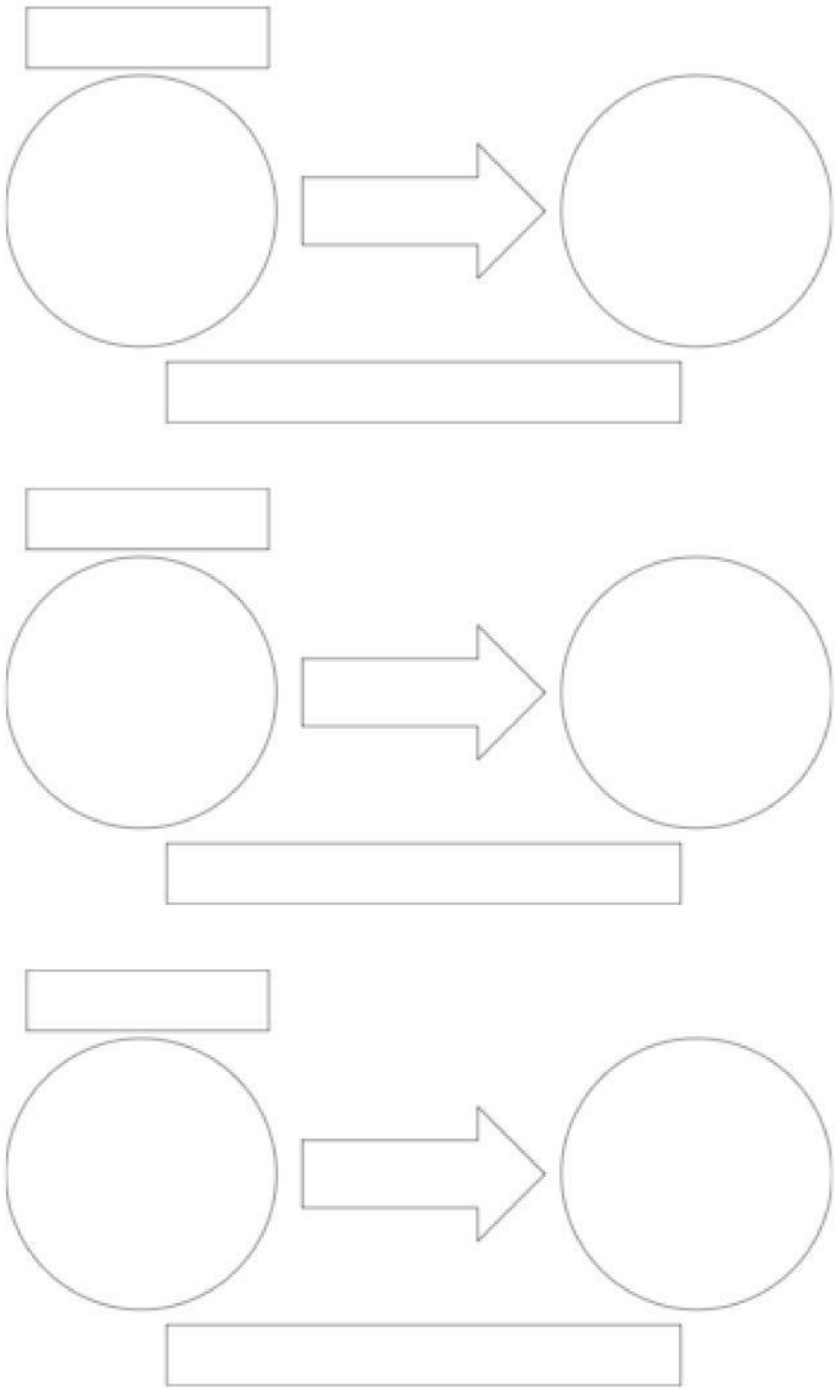
3. Animals and Light: Many animals, like turtles, use the light of the moon to guide them. Baby sea turtles, for instance, find their way to the ocean by following the moonlight reflecting on the water. **On the beaches, Some turtles frequently get confused with light pollution.**

4. Light Pollution: The Problem: But, what if there's too much light? That's called light pollution. Imagine you're trying to find your way in the dark with a flashlight, but everyone else is shining their flashlights in your face. It would be really hard to see where you're going! That's what's happening to our animal friends. **The evidence has shown that too many bright city lights frequently confuse animals.**

For example, baby sea turtles might head towards street lights instead of the ocean, which is dangerous for them. Birds might get confused and not migrate at the right time, and our moth friends can get so distracted by bright lights that they forget to eat or hide from predators, some in general we can that most of animals get affected by

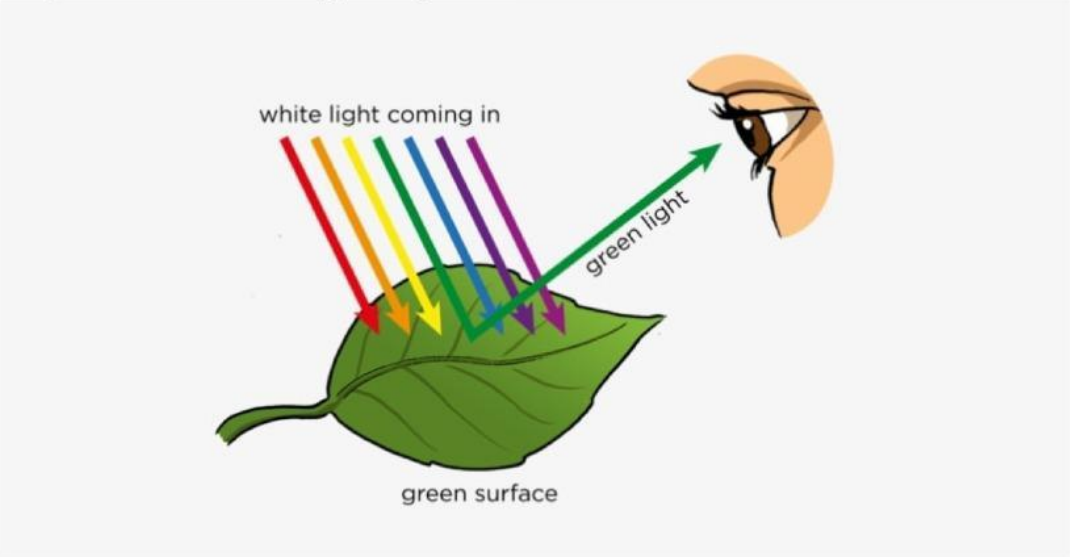
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Create three modal propositions from the last text:



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Why do tree leaves appear green?



They try to use all the frequencies of white light that comes from the sunlight, but the middle frequencies are the ones that are hardest to absorb, that's why they don't absorb green light but reflect it to the environment

Open the simulation
https://phet.colorado.edu/sims/html/bending-light/latest/bending-light_all.html?locale=es

Why does the white light refract all colors?

explain how reflection of light and absorption of light defines the color of things

Match the concept with the correct definition:

Refraction	is the going back of sound or light waves, produces echo and mirror effect
Amplitude	changes the direction of the waves, producing the effect of bending
Frequency	is the amount of waves in a time, decides the tone in sound waves, and the color in light waves
Reflection	is the size of the waves, defines the volume in sound waves and the intensity in light waves

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