

AGENTS OF CHANGE



MISSION LOG
A5: ELECTRICITY



COMPLETE THE CIRCUIT

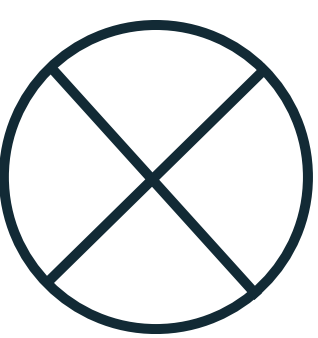
Create a simple series circuit with the following components - cell, bulb, switch. Use your knowledge of electricity to predict what will happen when the switch is turned on and off. Test you circuit and record your observations. Record and explain your findings.



Cell



Wire



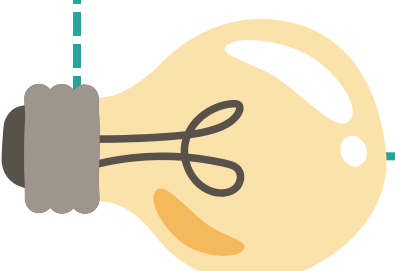
Bulb



Switch (off)

Switch (on)

PLAN YOUR CIRCUIT

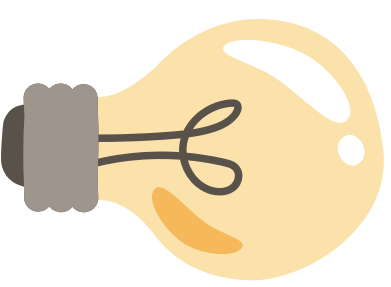


RECORD YOUR FINDINGS

Predictions:

Observations:

Conclusion:



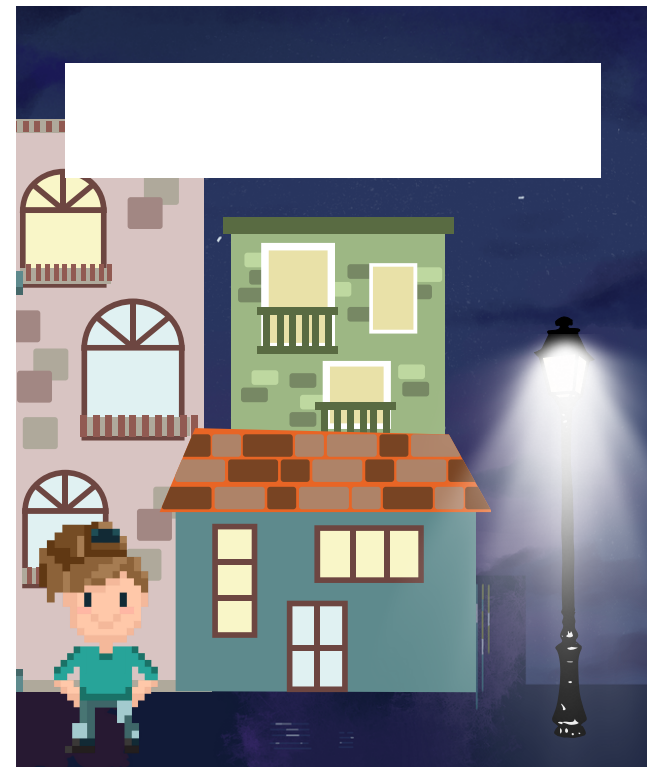
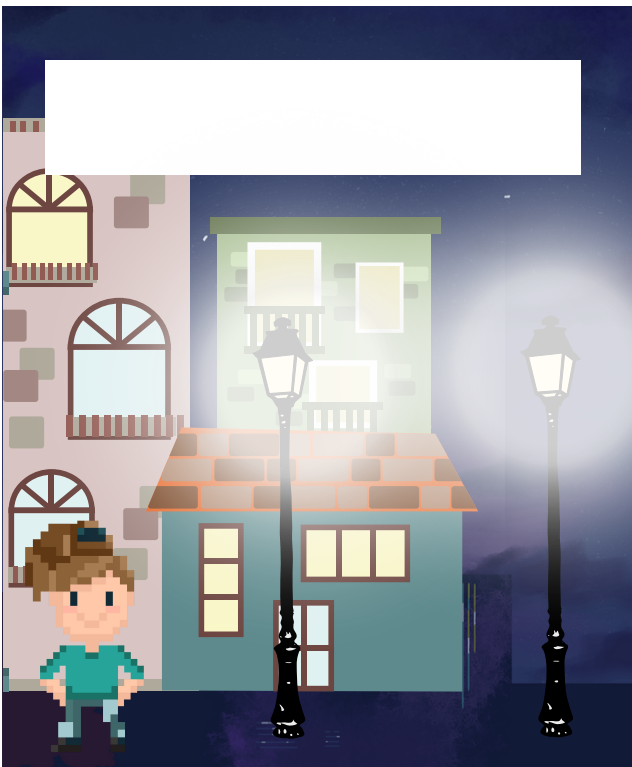
NO NIGHT TIME

Darkness is the absence of light. Nocturnal animals, such as bats, moths and owls, can only function effectively and thrive in the darkness of night. Using the photograph as a prompt, discuss the impact of light pollution on nocturnal animals.



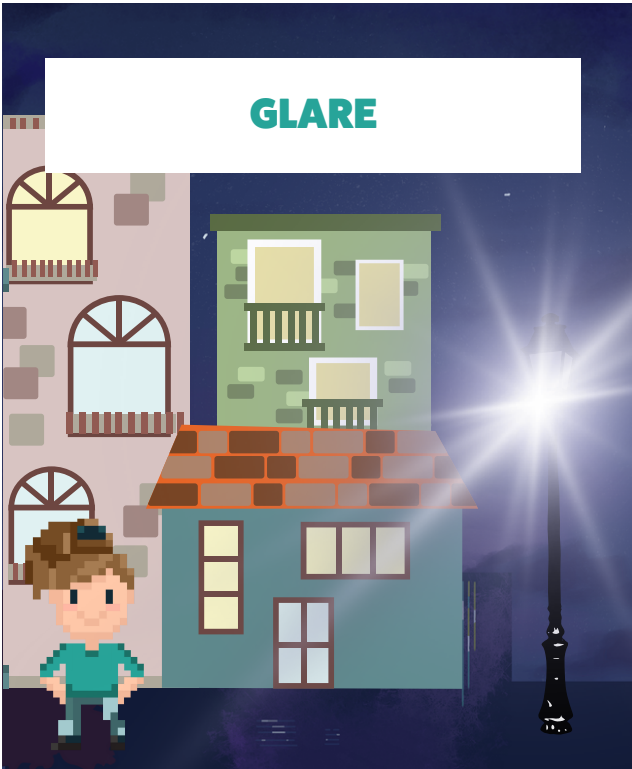
LIGHT POLLUTION

Add labels and definitions to the light pollution scene, **glare**, **light trespass**, **over lighting** and **sky glow**.



LIGHT POLLUTION

GLARE



SKY GLOW



OVERLIGHTING



LIGHT TRESPASS



THE MOONLIT JOURNEY

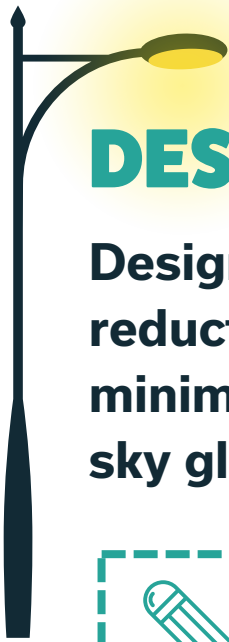
Baby turtles journey from the beach to the ocean when they hatch. They use the moon to guide their way; overlighting disorientates and frightens the turtles. Use this as a theme to create a story to encourage people to take action to try and prevent light pollution.



THE LOST BIRDS

Many birds migrate at night using the stars and moon as a guide. Light pollution in towns and cities prevents them from navigating their way to the right destination. Use this as a theme to create a story to encourage people to take action to prevent light pollution.





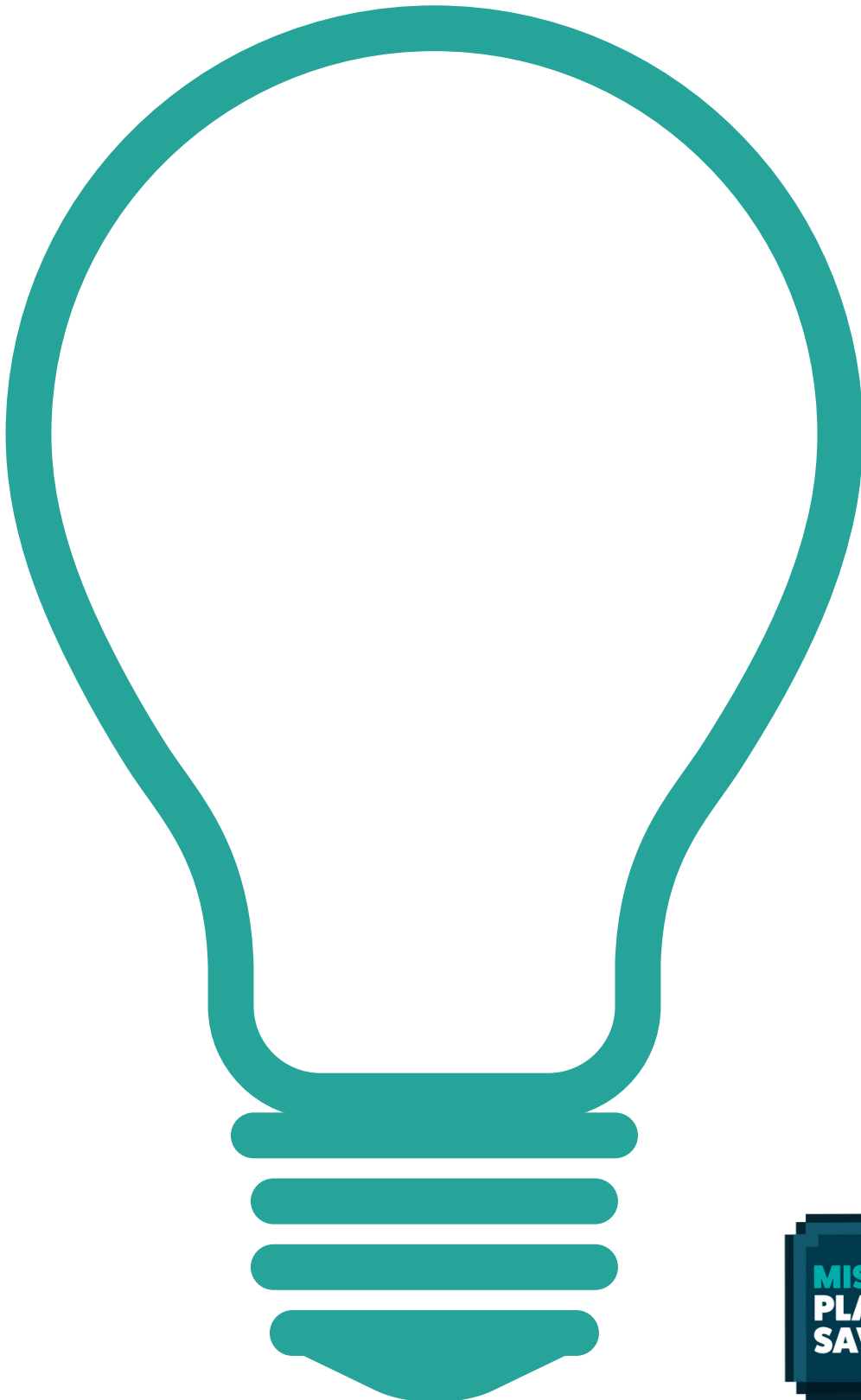
DESIGN A STREET LAMP

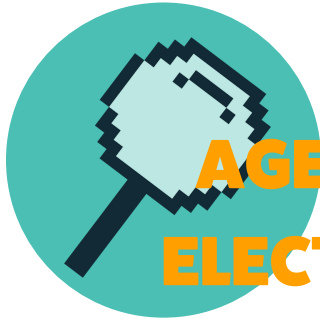
Design Brief: Design a street lamp that supports the reduction of light pollution. Think about how you can minimise glare zone, light trespass, over-lighting and sky glow.



LIGHT BULB MOMENT

Add a positive climate action and decorate the light bulb to display and encourage everyone to stop wasting energy and light.





AGENT A'S ELECTRICITY



ELECTRICITY	A flow of charged particles that provides power for everyday appliances. It is measured in atoms and stored in huge electricity grids.
FOSSIL FUELS	Natural resources such as coal, oil and gas. They were formed millions of years ago, from plant and animal matter. They are burned to produce energy, and are a non-renewable resource.
LIGHT POLLUTION	The brightening of the night sky by artificial sources of light, which causes a glare zone, light trespass, over-lighting and sky glow.
NOCTURNAL	Active during the night.
MIGRATION	The seasonal movement of animals from one area to another. For example, birds migrate towards the equator in the winter for warmer weather.
KILOWATTS	A measure of how much energy an appliance uses.
REDUCE	To make smaller in size, amount or number.
CULPRIT	A person who is responsible for a crime or doing something wrong.
LIGHT EMMITING DIODES (LED)	A device that emits light when electricity is passed through it.
COVEN	A group of witches.

AGENT A'S VOCABULARY CHALLENGE

ELECTRICITY

Can you match the words to the correct definitions?

ELECTRICITY	A measure of how much energy an appliance uses.
LIGHT POLLUTION	Movement from one country to another, for animals this is often seasonal. For example, birds fly to places with warmer weather for the winter.
NOCTURNAL	The brightening of the night sky by artificial sources of light, which causes a glare zone, light trespass, over-lighting and sky glow.
KILOWATTS	A flow of charged particles that provides power for everyday appliances. It is stored in huge grids.
DARKNESS	A device that emits lights when electricity is passed through it.
LIGHT EMMITING DIODES (LED)	Active during the night.
MIGRATION	The absence of light.