

Dark Night Skies

What is light pollution?

Light pollution is the use of artificial light at night. Plants and animals rely on the natural pattern of day and night, but humans have altered this with streetlights, brightly lit buildings and other types of lights.



Light pollution is a big problem for wildlife. Some creatures, such as moths, are attracted to light. They often navigate by moonlight. Artificial light leads them off course. Other animals are repelled by light. If a habitat becomes too bright at night, they can no longer live there. Bright lights can cause migratory birds to become confused and crash. Whole ecosystems are altered by light pollution. Some predators do well because they can see better. Others hide from the light and so don't get enough to eat. Too much artificial light can even be unhealthy for humans. We need to spend time in darkness each night to get good sleep, and to produce the melatonin that helps keep our body healthy.



Did you know..?

Cannock Chase has very low levels of light pollution compared with the surrounding towns and cities. Its dark night skies mean Cannock Chase provides vital habitats for wildlife such as the rare Emperor moth.

How does light pollution affect what you can see in the dark night skies? Try this activity to find out!

You will need:

A torch (the one on a phone will work)

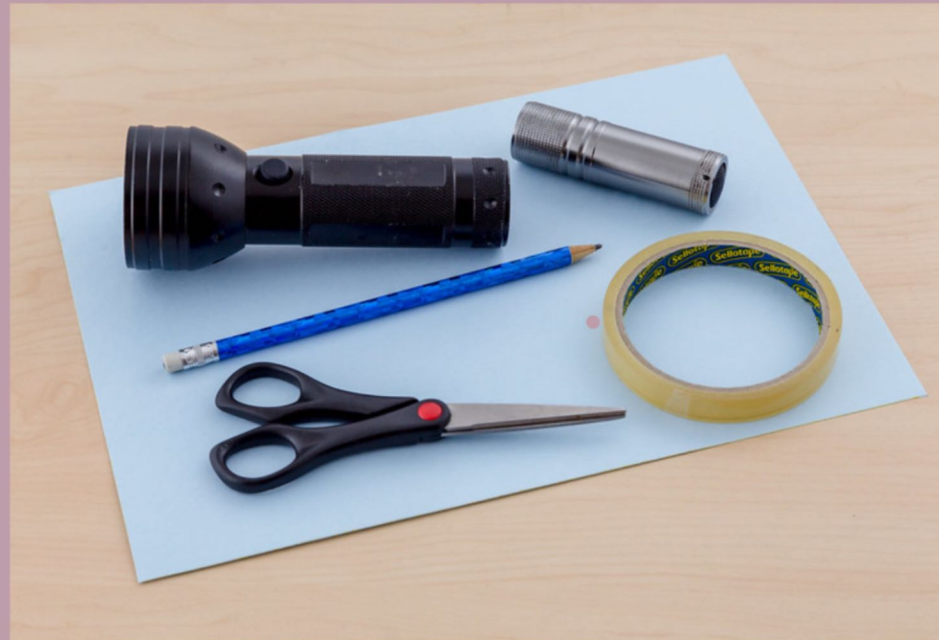
Black paper

Scissors

Sticky tape

A sharp pencil

A room you can darken



1. Cut a piece of paper slightly bigger than the front of your torch.

2. Use your pencil to poke holes in the paper to make a constellation of "stars."

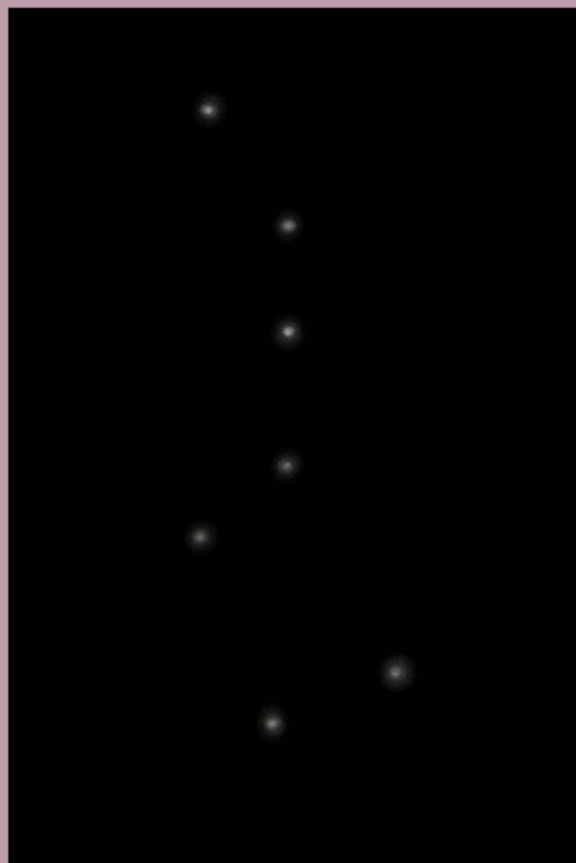
3. Tape the paper over the front of your torch.

4. Take your torch into a darkened room (you might want to wait till it's dark outside).

5. Turn the torch on and aim it at the ceiling, or a wall.

What can you see?

If you can't see your constellation, try moving the torch nearer to the wall.



6. Once you can see your constellation, try making the room a little brighter by turning on a lamp, or the main light. What happens?

It was probably easy to see your constellation in the darkened room. As the amount of light pollution from your lamps increased, you probably noticed your constellation seem to "disappear."

In the same way that the lights drowned out your constellation, artificial light drowns out natural light from the stars and reflected light from the moon. Wildlife needs dark night skies in order to behave naturally. We need to protect special places such as Cannock Chase from becoming too bright!