

# Drawing in the Dark

*Discovering nocturnal animal adaptations*



**Theme:** Animal Adaptations

**Time:** 20 mins

**Materials:**

- Blank colouring sheets
- Crayons (ideally darker colours with labels removed)

## Concepts:

1. Humans are not physically adapted for life in the total dark and must use all of their senses when investigating in lowlight situations.
2. Nocturnal animals have specific adaptations allowing them to succeed in the dark.

## What to Do:

- In a dark room, give each participant a colouring sheet. Some light will be required to see the colouring sheet, but should be dull enough that it is hard to distinguish the colours of the crayons - a small nightlight or candle works well.
- Colour the sheets using the label-free crayons. They will have to make their best guess of which colour is which.
- After a few mins of drawing, turn up the lights and ask everyone to show their pictures. Did they get the colours right?

## Explanation:

Colors are nearly impossible for humans to see at night. We have two types of cells in our eyes called rods and cones. Rods are light sensitive cells helpful with seeing at night and cones allow for seeing in color. Humans have many more cone (color) cells than rod (night vision) cells; therefore, our color vision is great (during the day) and our night vision is poor.

The only other animals that can see colors nearly as well as humans are diurnal (active during the day) birds. How do we know this? Many female birds choose their mates by the bright coloration of the males. Owls on the other hand, have mostly rods in their eyes so their low-light vision is very good.

## Wrap-Up:

1. Make a list of species that you know are nocturnal. Discuss:

Aside from excellent low-light vision, what other adaptations do animals have to help them find food, hide from predators, and move around at night?



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