

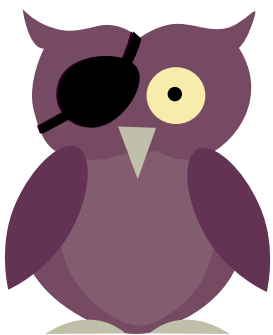


NOCTURNAL SENSES

Activity 1: Pirate Eye

Arr! Do ye want to be like a pirate? Many a pirate wore an eyepatch, but it wasn't because they were all missing eyes! It was important for pirates who frequently moved from above to below deck, to be able to move quickly. During the Golden Age of Pirates (~1600's) there was no electricity and it was ill advised to light a torch every time you went below deck, particularly as that was where the gun powder was stored. Using eye patches kept one eye dark-adapted.

FOR THIS ACTIVITY: You are going to see how the eye patch helps with your night vision. For this to work, you need it to be dark. Have everyone cover one eye while you turn on a light (lantern, flashlight, etc.) for 1–2 minutes. Have everyone look at the light with their uncovered eye.



When the time is up, turn off the light and have everyone open up both eyes. Switch the hand from covering one eye and then the other to see the difference in their night vision.

Activity 2: Raccoon Hands

The raccoon's sense of touch is its most important and specialised sense. Nearly two thirds of the sensory data that raccoon's process comes from touch. In other words, touch is as important a sense as hearing, smell, and sight. Raccoons can identify objects before touching them due to the vibrissae (specialised hairs or whiskers) located above their claws.

Humans also have incredible senses of touch. Our sense of touch is so sensitive that we can feel a bump corresponding to the size of a very large molecule. Or, if our fingers were the size of the world, we would be able to feel the difference between houses and cars.

FOR THIS ACTIVITY: Gather a variety of small items with different textures to be handled. Get everyone to stand with their hands cupped behind their backs. You can then pass the items around so that they can't see them, instead using their sense of touch to identify what they are. Make sure you don't say what you think the item is before everyone gets a chance to feel.



Activity 3: Bat and Moth

Bats track their prey using echolocation. They send off a high frequency sound wave which bounce back to them off of their prey. Try the following game to get a sense of how echolocation works!

FOR THIS ACTIVITY: One person will take on the role of a bat and will be blindfolded. The others will be moths, moving around without a blindfold. The bat is trying to tag the moths as they are moving about. In order to help find them, the bat can shout out "BAT". When the bat does this, the moths all have to respond saying "MOTH". When the moths are tagged, you can change roles, allowing others the chance to be the bat.



Activity 4: Scents of Mystery

Since vision is diminished at night for both humans and animals, we start using our other senses to compensate for this loss. Humans can smell about 5 million different scents. Each scent has its own receptor cell in our noses. Canines have 220 million smell cells. You can usually estimate the importance of the sense of smell to an animal by comparing the size of its nose to its head. Animals like dogs will also regularly wet their nose by licking it which helps increase their sense of smell.

FOR THIS ACTIVITY: Put some smelly items into containers so that people can't see. Have them close their eyes and smell the scent in the container before passing it along to the next person. Make sure that they don't say their answers out loud before others have a chance to smell. Keep passing around the different scents until everyone has been able to smell all of them. When all of the scents have been smelled, have them guess what each one was. You can also wet your nose with a drop of water to see if this helps to increase their sense of smell.

