

Wheel...of...function!

A gameshow-style exploration of adaptations

Summary:

Discover why some very special animals are blue.
Create a game to learn about how animals use the color blue to survive.

Guiding Questions:

What kind of animal is this?

What part(s) of the animal are blue?

How do you think being blue helps this animal live and survive?

Experience Goals:

- Learn the names of some blue animals.
- Discover how color can function as a survival strategy.
- Learn the different ways that animals use the color blue

Supplies:

- Wheel of Function image, arrow, and animal picture cards
- Scissors
- Glue
- Thumbtack or Brad/Brass Fastener
- Thin Cardboard (like a cereal box)

Steps:

1. Create the Wheel
 - a. Print and then cut out the Wheel of Function.
 - b. Print and cut out the animal picture cards along the dotted lines. Fold in the middle so the picture is on one side and the words are on the back.
 - c. Print and cut out the selection arrow.
 - d. Trace the wheel and arrow onto thin cardboard, like a cereal box. Cut out the cardboard shapes, and glue them to the back of the wheel and arrow.
 - e. Place the arrow in the middle of the Wheel, aligning the blue dot in the middle of the arrow with the center of the wheel. To attach the arrow to the wheel, use a thumbtack or brad fastener to poke through both the arrow and wheel.
2. Play the Game!
 - a. Set out the animal cards pictures up.
 - b. Players take turns spinning the arrow (spin again if you get a repeat animal).
 - c. When a player lands on an animal, they find its card and (before peeking on back!) try to decide why the animal is blue using Guiding Questions (above).
 - d. Check the back of the card to see how your animal uses blue to survive!
 - e. Collect your animal's card.
 - f. Read the Creature Files for more info on each blue animal!

Variations:

- Use a paperclip instead of the arrow
- Don't have a printer? Make it yourself! A bowl works well to trace a circle shape.

Creature Files

Blue Morpho Butterfly

The Morpho is one of the largest butterflies in the world. When it flies, the movement of its wings causes its blue color to shimmer differently in the light, making the butterfly seem to almost appear and disappear. This can really confuse predators!

Blue Bird of Paradise

The male Blue Bird of Paradise likes to show off his latest dance moves. In a courtship display, the male starts by hanging upside down from a thin branch. He “pulses” the black oval on his chest while fanning out his feathers, swaying back and forth.

Blue-Tongued Skink

Imagine if your tongue was a foot long and bright blue! The Blue-Tongued skink will puff itself up to look bigger when threatened, then stick out its long blue tongue. Studies suggest the tongue may also reflect UV light to help scare certain predators. Blue-tongued skinks can live up to 20 years.

Blue Ringed Octopus:

Have you ever seen blue flashing emergency lights? The Blue Ringed Octopus displays its rings as a warning or alert to other animals. And the warning is an important one; Blue Ringed Octopuses contain tetrodotoxin, a venom present in almost every organ in its body. The venom causes paralysis and can kill within minutes. There is no known antivenom.

Golden Snub-Nosed Monkey

Why do teams and clubs wear the same colored shirts? Because it helps them identify each other quickly... just like these monkeys' blue faces! Golden Snub-Nosed Monkeys live in groups of 20–30 live together in winter, but then might combine into groups of 200 or more in the summer.

Creature Files

Blue Jay:

Much like wearing flashy clothing, the Blue Jay's bright color attempts to draw the attention of other Jays. Blue Jays are intelligent, social birds that form strong family groups. The oldest known Blue Jay recorded in the wild was 26 years, 11 months (almost as old as SUE the T. Rex).

Blue Shark:

Camouflage can come in many different colors. While the color blue would make you stand out in most environments, the Blue Shark is able to blend in with the surrounding blue water. In fact, Blue Sharks display "countershading" or different camouflage on both the top and bottom. Their top half is blue to blend with the water, and the bottom half appears lighter to blend with the light from above.

Blue Man Group:

The Blue Men are indeed human! A thick layer of blue makeup can make a big difference in how they are perceived. The group formed in 1987, and employs 7-9 full time "Blue Men" at a time. Like many other blue animals, the Blue Man Group uses their bright blue makeup to stand out, get attention, and be remembered.

Blue Poison Dart Frog:

Like a warning label, this frog's blue color sends a strong message to predators: don't eat me, or else! This frog's poison comes from the insects it eats, so in captivity they are often not poisonous. Each frog also has a unique pattern of black spots, similar to a human's fingerprint.

Blue Tang fish

As the name suggests, the Blue Tang is already blue. But when agitated, the Blue Tang changes to a darker blue to warn others (for example, when two males are fighting for territory). They also have a sharp caudal spine, which injects a painful venom that is not fatal to humans.





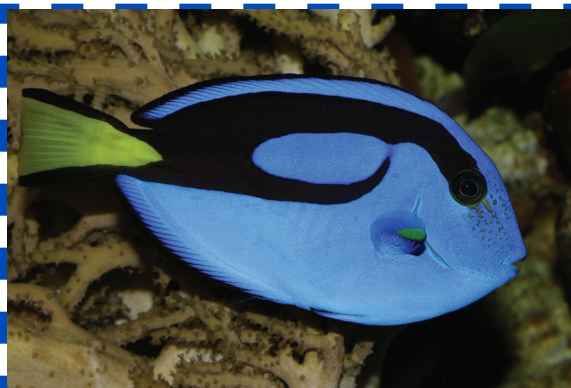
Bird of Paradise:

My blue attracts a mate



Poison Dart Frog:

My blue warns predators



Blue Tang:

My blue changes as a form of communication



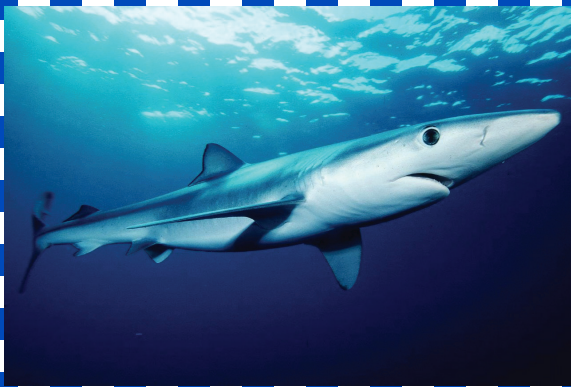
Golden Snub-Nosed Monkey:

My blue helps me identify my group



Blue Jay

My blue attracts a mate



Blue Shark

My blue is camouflage



Blue Morpho Butterfly

My blue attracts a mate
My blue startles predators



Blue Tongued Skink:

My blue startles predators



Blue Ringed Octopus:

My blue warns predators



Blue Man Group:

My blue is to attract attention

Image credits

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