

# Outdoor Science! Week 1

## Day 3: Survival 101

### Teacher/Parent Background:

- In this activity, students will use digital resources to identify and describe how certain structures of various flora and fauna provide helpful survival advantages. Through “tours” of the outdoors, students will actively engage with the main flora and fauna of their own habitat in order to identify the adaptations that help the flora and fauna around them survive!

### Related Standards:

- Analyze and interpret environmental data demonstrate that species either adapt and survive, or go extinct over time.

### Key Terms:

Adaptations - structures or behaviors that help living things survive in their habitats

Structural adaptations - physical parts of living things that help them survive

Behavioral adaptations - actions living things do that help them survive

Camouflage - the process of living things blending into their surroundings

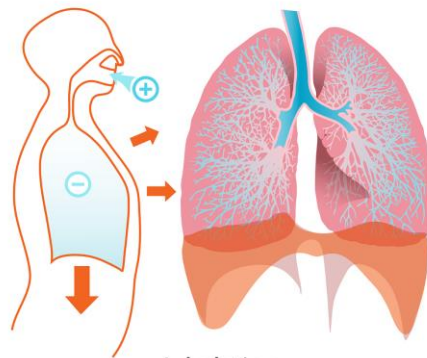
### Materials List:

- Parental/adult supervision
- Internet access
- *Lung & Gills Picture/Video* - included in the *Activity Description* section
- *Adaptations of Flora & Fauna Pictures/Videos* - included in the *Activity Description* section
- Computer/phone with audio
- Supplies for optional *Blubber Glove* experiment by Steve Spangler Science - included in the *Activity Description* section
  - Parental/adult supervision
  - Bucket or large bowl
  - Cool water
  - Ice cubes
  - Zipper lock bags

- Shortening
- Spoon
- Duct tape
- Journal
- Pen/pencil
- Colored pencils/crayons

### Activity Description:

- Ask students to review examples of structures and functions of flora and fauna in their journals from *Day 2: What's Your Function?*. Briefly recap the main ideas from Day 2's activity:
  - What were some of the structures and functions of the flora and fauna we observed/discussed?
  - How do these structures and functions help them carry out basic life functions?
- For instance, you and I use our lungs to take in oxygen by breathing in air. Fish, on the other hand, use their gills to take in oxygen.
  - Show students the *Lung & Gills Picture/Video* below.



■ **Lungs** -

■ **Gills** - American Museum of Natural History - [\*Fish Using Gills to Breathe\*](#)

- As we have learned, lungs and gills are examples of structures, as lungs and gills are body parts that perform a function or job; in this case, helping us all breathe!
  - Structures that help living things survive in their habitats are called *adaptations*. Lungs are an adaptation for living on land while gills are an adaptation for living in water. A behavior or action can also be an adaptation, for example, desert fauna, like mice, hide underground or under rocks during the day to escape the heat!

- Gill and lung example adapted from *Science Saurus, A Student Handbook* - Great Source Education Group
- Adaptations give living things a great survival advantage, giving them the best chance at living in their habitats.
- Let's take a closer look at some awesome examples of flora and fauna structural and behavioral adaptations!
  - Show students the *Adaptations of Flora & Fauna Pictures/Videos*.
  - Ask students to identify the adaptation and discuss/record the survival advantage of each adaptation. Picture/video examples are as follows:
    - Blubber, Fur & Huddling - SciShow Kids - [Staying Warm in Polar Habitats](#)
      - Try this [Bubble Glove](#) experiment by Steve Spangler Science to test how blubber works with simple, household materials!
    - *Camouflage*, or the process of living things blending into their surroundings.



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- Camouflaged Animals - National Geographic Kids - [Hidden Animals Gallery/Slideshow](#)
- Camouflage - BrainPOP jr - [Camouflage](#)
  - Request free access during the school closure period using this [link](#).
- Plant Adaptations for Accessing Sunlight, Water, Nutrients, etc., - BrainPOP jr - [Plant Adaptations](#)



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- Bird Beaks & Feeding Habits - Naturalist Outreach - *Beaks: Bird Feeding Adaptations*



- As we can see, there are many examples of the structural and behavioral adaptations of different types of flora and fauna!
- Let's now just think about the flora and fauna that live outdoors, in our very own neighborhood; an urban/desert habitat! What kinds of adaptations do our urban/desert flora and fauna have? How do these adaptations help them survive?
  - With adult/parental supervision, take a "tour" of the safe, easily accessible outdoor areas of your neighborhood. This may include: your front and backyard, sidewalks around your neighborhood, a nearby field or park, etc.
  - During the tour, ask students to record adaptations and the survival advantages of the flora and fauna they observe, through the use of drawings with labeled words/phrases.

### Closure:

- Return home to discuss the results of the tour. Engage students in a discussion of questions:
  - What kinds of flora adaptations did you observe during the tour? How do those adaptations help them survive in their habitat?
  - What kinds of fauna adaptations did you observe during the tour? How do those adaptations help them survive in their habitat?
  - What would happen to the flora and fauna if their habitat changed or what if something in their habitat changed? Would their adaptations still be beneficial? Why or why not?

### Extensions:

- Watch!
  - PBS Nature Works - *Adaptation*
- Play!

- Arizona Sonora Desert Museum - *Desert Adaptations Game*