



30-DAY CHALLENGE

This 30-day challenge was created to get students of all ages outside to explore, observe, and critically think about the ecosystems in Tampa Bay.

Each challenge has follow-up questions that foster further discussion with students, encourage the student to formulate their own questions as well.

If some activities are more enjoyable for your student than others, feel free to repeat or skip!

A simple journal for recording observations, drawing and writing would be helpful for most activities.

Helpful Resources

National Audobon Society books are great for identification and information on animals and plants, especially informative for birding.

National Wildlife Federation has free nature guide apps for IDs of all kinds- from birds to fungi.

01

Find an organism and observe it for 5 minutes (or longer if you want!), record their behavior in your notebook. What did you notice?

02

Pick up a bucket's worth of trash from your neighborhood. What was the source of most of the garbage? What steps do you think would help more trash make it in the garbage?

03

Research a species native to Tampa Bay that you want to learn more about and recreate a day in their life (in their habitat if possible). What did they eat? What was their habitat? How far did they travel?

04

Have you ever thought about where your drinking water comes from? Most of Tampa Bay's water comes from surface water. Draw a picture on the sidewalk of the water cycle. What are the steps? How does this influence Tampa Bay?

05

There are so many cool critters that in live in Tampa Bay from dolphins to the Roseate spoonbill. What's your favorite? Recreate the life cycle of that organism. Be creative - draw, act out, or write a story!

06

The Tocobag tribe lived in Tampa Bay and developed many tools for hunting, cooking, and eating. One such tool was the adz. The adz was made of a shell or pointed stone tied to the end of a curved branch. It was used for digging. Create your own adz and try it out! What are some other tools you can make?

07

Plants native to Florida provide habitats, food and oxygen for organisms. Find and draw 5 plants native to Florida. Be sure to include labels, names, and color! Why are the leaves of plants different shapes? What are some adaptations of these plants?

08

How are waves formed? Fill a container with water outside and use natural tools to create your waves. How do you think most waves in Tampa Bay are formed? How do waves impact shorelines?

09

For 5 minutes draw a sound map of all the noises you hear while you are sitting. The farther away a sound is, the farther away from the X on the sound map. Feel free to try in different locations. What noises do you hear the most? Could you identify all of the sounds?

10

Invasive species outcompete native organisms for resources. Can you find invasive species in your neighborhood? What was their origin country? How do you think these species arrived in Tampa Bay? If possible, plan to remove the plants.

11

Tampa Bay has one of the most active ports in the nation. Create your own miniature boat. What materials worked, what didn't? How does boat traffic affect wildlife?

12

Make a scene from Tampa Bay using only natural items such as grass, sticks and rocks. Be mindful of using materials that are easily renewable. Take a picture!

13

Hundreds of species of birds migrate and live in Tampa Bay. Start a birding journal, identify and observe behavior of birds for 20 minutes. Record your notes and observations. What did you notice? For each species, try to include amount, behavior, and habitat seen in. Visit Audubon Society for help with identification.

14

Find and draw a consumer, decomposer, and 3 producers. Drawings should be detailed and labeled. What evidence did you observe that helped you determine each organism's role in the ecosystem? List some evidence!

15

Find a comfortable spot in your neighborhood or park. In your journal draw your surroundings, every plant, animal, abiotic thing you can see (or feel!). How do all of these things interact to form an ecosystem? Draw arrows between them to show interaction.

16

What is your favorite animal that lives in Tampa Bay? Draw a picture of it on the sidewalk and list your 2 favorite facts about your organism! What do you think people would like to know about the animal? How can people help protect this animal?

17

Plants release oxygen through small pores in their leaves called stomata. Plants also lose water in this process, called transpiration. To observe this, place a clear bag over a leaf of a healthy plant and secure it. What do you think will happen? Record your observations throughout the day.

18

With your journal, explore an area searching for organisms. You can draw each organism (or write their name). Add a tally mark for each organism of that kind you see! The more diverse your list, the healthier the habitat! How diverse was the area?

19

Some plants use seeds to reproduce and have adapted a number of ways to ensure their seeds are successful. You might have noticed some sticking to your pants! Find some seeds and their parent plant. How does this seed make it to a plant?

20

Fill a sealable container with sand, dirt, and water. Shake up the container, what are some things you notice? How long did it take for the water to become clear? When would this happen in estuaries? How do you think erosion and turbidity affect Tampa Bay?

21

Find an organism. Write a story about its life, try to include what it eats, what other organisms it interacts with, where it lives and how it is impacted by humans. Share your story with someone!

22

Phytoplankton are tiny organisms that live in water and produce oxygen. Sometimes phytoplankton bloom – causing Red Tide. Collect surface water with a container, try to observe phytoplankton with magnifying lens, phone camera, or microscope. What do you wonder about these organisms?

23

Dig a hole 6 inches into the dirt. What do you observe? Healthy soil will have rounded particles that absorb moisture and have dark organic matter. Is the soil healthy? What does it feel like? Count the number of organisms in the dirt and in the hole you've made. What does that number mean?

24

Mangroves provide critical habitats for crabs and other animals. Their roots provide oxygen for the soil and help keep the shores from eroding in bad weather. There are 3 types of mangroves native to Tampa Bay. They can be identified by their leaves and root structure. Try to find and identify all 3, draw as best as you can.

25

Endangered species are organisms close to extinction, due to habitat loss, invasive species or hunting. Research an endangered species native to Tampa Bay, such as manatees. Draw a food chain with them on the sidewalk. What would happen if they were gone? What role do we play?

26

Find a peaceful spot. Sit for 10 minutes. For the first 2 minutes only observe with your sense of hearing. The next 2 minutes only observe with your sense of smell, then touch, then taste, then sight. What did you notice? What surprised you?

27

Scavenger hunt. Make your own scavenger hunt and try it out with a family member. Try to incorporate Tampa Bay plants and animals in the search.

28

Imagine you've invented a new animal that lives in Tampa Bay. What would that animal look like? What is its habitat? What does it eat? Draw a picture and label parts!

29

What is sand made of? How did it get there? Notice texture, size, color and shape of your sample. Draw 5 grains of sand and hypothesize how it came to be on that beach.

30

Our 30 days is over! You've learned and observed so much over the 30 days. Share your favorite knowledge with your family! This can be done in a play, a story, a sidewalk drawing, a song; use your imagination!
