SCHOOLYARD BIOBLITZ

Grades 1 - 8, Science and Technology
Prepared for Monarch Mayhem 2020

OVERVIEW & PURPOSE

The purpose of this lesson is to help students understand the diversity of life around them, the human impact on the environment and introduce them to the Seek app. The lesson begins with a short introduction followed by an outdoor activity using the app.

Estimated time to complete: 45 minutes

Please note: the Seek app is child friendly and does not require a login.

EDUCATION STANDARDS

1. Understanding biodiversity.
2. Human impacts on the environment.

OBJECTIVES

1. Students will better understand the diversity of life and the human impact on the environment.
2. Experience using the mobile app, including taking photos and learning about wildlife.
3. Improve understanding of the natural world and species identification skills.

MATERIALS NEEDED

1. [Seek User Guide](#).
2. Mobile phone or tablet. Students can pair up and take turns (at a distance) if not enough available.
3. Internet connection to download the Seek app. This app is free to use. Available on iOS and Android.

VERIFICATION

Steps to check for student understanding

1. Students will have taken photos and used the app to identify species.
2. Learn more about a species they identified.
3. Reflection activity will highlight student's understanding of human impact on their environment.

PRESENTATION

Have students download the Seek by iNaturalist app prior to lesson and use the third option shown on the main page "Continue without signing in". Enable location to improve wildlife identifications. The teacher has the option to sign in to iNaturalist to have photos identified by experts if they want to.

Introduction: Does anyone know what citizen science could be?

Citizen science is when regular people help contribute to scientific research.

You can use the Seek app to find out more about wildlife, learn how to identify different species and help scientists all at the same time! Ever wondered what kind of bird lives in your tree outside or the 'weeds' growing along the sidewalk? This app can help! The built in identification software helps you identify animals and plants in real time.

How to use:

- Press the camera button at the bottom of the app
- Take a photo of a living thing.
- See what the app identifies. You may need to move the camera around or hold your phone steady to get a better identification.

Tips for taking better photos: Get closer! Take photos of different parts of the living thing (eg: a plant flower, stem or bark and leaves) and take a photo with the sun behind you.

ACTIVITY

Set out the parameters of the area they should explore and let everyone know to meet back at a specific spot in 15 minutes. Pair off or let students partner up in teams of two or more and remind them of social distancing rules. Ask everyone to open the app on their phones/ school tablets and click the camera at the bottom of the screen. Start taking photos of wildlife. This includes every living thing - plants, insects, mushrooms, mammals and much much more!

Note: You can identify species without an internet connection.

Reflection
This can be done by walking around and speaking to participants during the activity if internet connection is available or when everyone is back inside afterwards. It is important to reflect on what was learnt and the importance of it to make a lasting impact. Try asking some of the following questions:

Did you find any living things you had never seen before?

Was there more or less life than you expected?

If less, do you think the area you explored has the three requirements for life: food, water and shelter?

What was an interesting plant or animal you saw?

Did you get an identification when using the app?

Do you think you will use Seek in the future?

> **For students in grades 7 and 8:** Lawns are often considered a 'desert' for insects, including many of Canada's pollinators. There is a lack of biodiversity, including flowering plants (food) or logs, shrubs, hollow plant stems and leaf litter (shelter). In addition, there are usually no puddling areas, ponds or bird baths (water).

Optional: Be a part of the nationwide schoolyard bioblitz

When the activity is completed, the identifications can be uploaded to iNaturalist by you to contribute to citizen science as well as have expert scientists and community members identify the plants or animals.

Learn how to create an account at iNaturalist.ca. When your account is activated, join the "Schoolyard Bioblitz 2020" project by using the search bar at the top and hitting "join" at the top left. Have students send their photos to you by email or through the school network.

Students can be shown what other students across the country observed in their schoolyard and learn about the plants or animals they saw. This is a great way to highlight the incredible biodiversity found across Canada.