Outdoor Citizen Scientist Learning

Choose where to begin your science journey!

Bio Blitz - for new scientists

A 'BioBlitz' is a concerted effort to discover and record as many living things as possible within a set location over a limited time period (usually 24 to 36 hours). The main scientific aim of a BioBlitz is to generate or extend biodiversity data at the chosen location. BioBlitzes cannot be complete biological surveys but they do create significant species lists and have facilitated the discovery of new species, the rediscovery of rare species and the identification of species where they are not usually found.

Through recording the names and locations of species, a BioBlitz can generate biological species' records that can be used to help scientific research as well as to inform conservation practice and policy, local planning and land management on a variety of scales.

Resources and Preparation:
- Prepare login account for iNaturalist.
- Digital cameras / tablets for taking photo observations.
- Clipboards, pencils.
- Rope to mark out the Blitz area for your student groups (1mx1m).
- Mark out the Blitz areas and consider how you will group your students.
- Optional tools to help (magnifying glasses).
- Consider inviting a local naturalist as a special expert guest for the activity.
- Consider working with an older buddy class to help support the students.

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Main activity:
- Head outside and model the activity at one assigned BioBlitz location.
- Break into smaller groups, and explain how each group will look in a designated BioBlitz location (marked out using rope in a 1mx1m area – could use skipping ropes to mark out)
    - Ask the students to look in the marked location and notice what it looks like
    - "Mission time" - let the students know its time to find as many treasures as they can, take photos of them
- At the end of the time, return for a class discussion.

Discussion questions:
Explain what a BioBlitz is – its like a treasure hunt to count and identify all the species in one area. It's when children (and adults) work together with Scientists to do important work together to find all the living things where you visit.
- What sorts of plants and animals did you find?
- What did you notice about your BioBlitz site? Was it shady, in a sunny position, was there lots of leaf litter, plants and places for insects to hide, was it wet or dry?
- What things help the animals and plants to live here and what things might make t hard for them to live here?
- How many species (different types) did you find?
- what have we learnt about the space

Where to next?
Educator activities
- Save all observation photos into a folder saved as the date of the Blitz.
- Log into iNaturalist and upload the photos as a batch export to save time.
- Check back in to view data results.
- Discuss the findings with the class (number of different species).

Student activities
- Use the photos to do some more detailed sketches of the species, frame them as a display in the classroom.
- Use the data to make graph of the number of observations made
- Research one of the insects, animals or plant to learn more about it
- Learn the local Indigenous name for the insect, animal or plant.
- Use a microscope or magnifying glasses to look at one insect or leaf more closely
- Create a story about one of the insects or animals found
- Head outside and make bug hotels and new habitat for species
- Repeat the BioBlitz in a different season to compare observations
- Create a "mission" to find a specific species or artefact i.e banksias, or seedpods.

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Curriculum links:

- Living things have basic needs, including food and water (ACSSU002)
- Living things have a variety of external features (ACSSU017)
- Living things live in different places where their needs are met (ACSSU211)
- Science involves observing, asking questions about, and describing changes in, objects and events (ACSHE021)
- Pose and respond to questions, and make predictions about familiar objects and events (ACSIS024)
- Participate in guided investigations to explore and answer questions (ACSIS025)
- Use informal measurements to collect and record observations, using digital technologies as appropriate (ACSIS026)
- Use a range of methods to sort information, including drawings and provided tables and through discussion, compare observations with predictions (ACSIS027)

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