

How to Host a Schoolyard BioBlitz



A schoolyard BioBlitz is an excellent opportunity for students to learn more about the environment in their local geography. Students observe their local schoolyard and conduct a biodiversity survey! Students can observe all living things in their schoolyard; plants, animals, microbes, etc. Students will record their observations and geographical location of their findings. Their observations can be entered into iNaturalist, an app and website contributing to a global biodiversity count. The Texas Alliance for Geographic Education wants your school

to inspire students to explore their local geography, become stewards of their community's natural resources, and lead conservation efforts. Students are open to endless conservation opportunities, and we hope a BioBlitz can be a push towards or a continuation of their efforts!

1. Get Inspired

- ☐ [Watch the *Why is a BioBlitz Important* video](#)
- ☐ Read how one teacher used the BioBlitz to engage students – [Education Spotlight: Sparking Wonder in the Schoolyard](#)
- ☐ View [Texas Schoolyard BioBlitz](#) findings from Spring 2016

2. Lessons and Activities

Guiding Questions

- What is a BioBlitz?
- What is biodiversity?
- Why is biodiversity important?
- How can a BioBlitz help us learn about local biodiversity?
- What types of plants and animals live in our schoolyard?
- Other potential questions: How does the temperature and rainfall have an impact on the range of species that on our schoolyard? Where else do these plants and animals live?

NGS Lessons and Instructional Materials

[Introducing Biodiversity and BioBlitz](#) (Grades 4-8)

[Analyzing BioBlitz Data](#) (Grades 4-8)

[Additional NGS Resources](#)

Includes videos, activities, as well as the latest observations from across the nation.

- ☐ Observing and Recording Habitats (Grades 3-5)
<http://nationalgeographic.org/activity/observing-recording-habitats/>
 - ☐ Species Identification (Grades 6-12)
<http://nationalgeographic.org/activity/species-identification/>
 - ☐ Plot Study Observation (Grades 6-12)
<http://nationalgeographic.org/activity/plot-study-observations/>
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3. Plan

- ☐ Identify a BioBlitz coordinator
 - ☐ Set a date, time (minimum suggested time 1 hour), and location within the schoolyard for your BioBlitz. **Consider seasonal weather before choosing a date.**
 - ☐ Identify a location at your schoolyard for a BioBlitz. This is where your students will make observations. Take time to walk around and find areas that may have a higher concentration of plants and animals such as a pond, tree covered area, etc. **Have your students sketch a map of the area.**
 - ☐ Request a BioBlitz Tool Box from the Texas Alliance. This box will contain materials for the field and supplemental resources.
 - ☐ Decide if you will photograph and email the pictures to tage.geography@txstate.edu for uploading into iNaturalist, or if you will use the iNaturalist app. If you use the app, we recommend practicing beforehand and recruiting a volunteer or assign one person to be in charge of using the app. Read the iNaturalist information below or in the lesson. For iNaturalist, upload all observations into the *Texas Geo BioBlitz project*.
 - ☐ Organize the participants into groups **TIP: Assign a group leader to each group that will collect species recordings and enter them into the iNaturalist app or follow participants and enter observations into app as they go.**
 - ☐ Recruit volunteers if needed. The more the merrier! Ask other teachers, parents, or local biology gurus that may be able to help students identify species in the field, or the Texas Master Naturalists in your area (the Alliance will provide you with contact information *if applicable* to your area).
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4. iNaturalist*

- ☐ Have group leaders or participants create iNaturalist accounts, dependent on what works best for your school.
- ☐ iNaturalist can be used on a mobile device or a desktop. Observations can be recorded in the field on a mobile device or entered onto the website after the event.
- ☐ Take photos on your mobile device or camera to add to your observations. **TIP: Teachers in the past have found it easier to have a group leader create an account and add their group's observations as they observe in the field.**
- ☐ Join the *Texas Geo BioBlitz* project on iNaturalist. This is where observations from your BioBlitz will be entered. Make sure to add the GPS location for an observation. If you

need help identifying an observation, check the “Help me ID” for crowdsourcing assistance.

TIP: Practice using the app before the big event. The app may not work in all schoolyards and the observations will have to be entered after the event. There are tutorials on the Alliance website and the iNaturalist website.

* Or email the pictures to tage.geography@txstate.edu for uploading into iNaturalist

5. BioBlitz – Observe. Record. Identify.

- ☐ Review and use the [Introducing Biodiversity and BioBlitz](#) lesson, powerpoint, and handouts.
 - ☐ Have students get outside and start BioBlitzing!
 - ☐ After the observations have been recorded in iNaturalist. Take a look at the results. Have a post-discussion/activity about what species found, why students think they were found where they were, how students gathered their data, etc.
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6. Post BioBlitz

- ☐ If species are left unidentified, check “ID Help” on iNaturalist and check back periodically to see if they have been identified. **TIPS: Utilize online species identification guides, contact Texas Master Naturalists or local assistance for additional identification help. Helpful identification links will be available on the Alliance website.**
 - ☐ Analyze your findings with [Analyzing BioBlitz Data](#).
 - ☐ If preferred, email your images for uploading by TAGE.
 - ☐ Complete the [Post-BioBlitz Report Form](#). This information helps us gather additional funding for other programs and activities.
 - ☐ Everyone who submits a form will receive a thank you gift!
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Questions? Contact the Texas Alliance for Geographic Education at

Email: tage.geography@txstate.edu * Phone: 512.245.3827



iNaturalist Guide

1. Sign up for an iNaturalist account(s)

- ❖ Determine if your school is going to have one account or if your school is dividing into groups for the BioBlitz. If dividing into groups, consider making individual accounts per group.
- ❖ Go to iNaturalist.org or use the iNaturalist app on IOS/Andriod to **sign up** for an account. You can use this login for both the website and app.

2. Add Texas Geo project

- ❖ Once you have signed up for an account, go to the “**Projects**” tab and search for “[Texas Geo Project](#)”. Enter observations from your BioBlitz here.

3. Add observations

- ❖ You can add your observations different ways:
 - Record observations with data sheets and camera pictures during the BioBlitz and add the observations onto the iNaturalist website afterwards.
 - Record and observe directly into the Texas Geo BioBlitz project on the IOS/Android app.
- ❖ When entering your observations, add as much information as possible. This will allow others to assist you on identifying your species, if you are unable to do so.
 - **What**- your species identification (if possible), photo, and any possible notes about the observation.
 - **When**- add the date and time your observation
 - **Where**- add your geographic location in the form of latitude and longitude coordinates or mark a point on the provided map
 - **Save**- save your observation before continuing to another observation!
- ❖ If you are unsure of the species, you can search for a species by narrowing down the options under the “**What did you see?**” search bar.
- ❖ If you are unable to identify a species, select the option, “Help Me ID This Species” for the IOS app, “Need ID help?” for the Android app, or “ID please?” on the iNaturalist website. You can check back to your account at a later time to see if your observation has been identified by another iNaturalist member.

4. When adding observations, remember to add your geographic location

- ❖ Record the location as accurate as possible if not adding your observations to iNaturalist during the BioBlitz. Having the latitude and longitude coordinates is recommended. You can get these coordinates if your school has a GPS device or from a cell phone. If you don’t have access to these options, there will be an option to mark a point on a map while entering your observation data.

- ❖ If you are adding observations during the BioBlitz with the iNaturalist app, make sure you have **enabled location services** for the iNaturalist app in your IOS/Android settings. When entering your observation, double check your location is refreshing for each new observation.
- ❖ Before saving your observation, look for the “**Geo Privacy**” option and select “**Open**”. This will allow others to see the location of the observation.

5. Sync

- ❖ When using the app, make sure to sync your observations once you are back in wifi range. Your observations may have already synced if you had access to cellular data. To check your syncing status go to the “Observations” menu. If there is an option to “Sync Observations”, your observations have not been synced yet.
- ❖ In the “**Observations**” menu, review your observations and then press “Sync Observations”. You must remain in good wifi or cellular data range until syncing has been completed.

Need more help?

<http://www.inaturalist.org/pages/getting+started>


Official Explorer

This diploma certifies that

celebrated Geography Awareness Week
by participating in a BioBlitz.

Date





James F. Petersen, Coordinator
Texas Alliance for Geographic Education



We are a
Bio Blitz
class!

