Get Hip to Habitat: 2020-2021



Get Hip to Habitat is a project-based program available for 6th-12th grade students. This year-long project connects students to their local Bay as they restore area wetlands by growing and maintaining marsh plants to be planted in the Bay at the end of the year. The program teaches students about our ecosystem and local watershed while gaining a strong sense of ownership and pride of Galveston Bay.

This year Get Hip to Habitat will have multiple options available to schools. We plan to have discussions with each participating teacher throughout the year to keep communication lines open regarding COVID-19 safety precautions and school procedures. All activities described below are subject to change.

Teacher Workshop

August 19th at 7pm: GBF will offer a virtual teacher workshop to discuss and go over the 2020-2021 adaptations to the program. Please register by Monday, August 17th.

• Teacher Workshop <u>Registration link!</u>

Get Hip to Habitat Application

Please review the information below prior to completing the application for this school year. Applications are due no later than **August 31st**.

• Get Hip to Habitat Application Link!

*Programming will start no earlier than September 14th.

Options (pick one)

- A. Wetland on Campus
 - Schools will receive 1-4 wetland habitat pools on campus (decision based on GBF discussions)
 - GBF staff delivers and creates wetland habitats on campus.
 - The on-campus wetland habitat consists of 50 1-gallon pots of smooth cordgrass contained in a small 5-ft wading pool filled with saltwater.
 - Teachers will receive correlating curriculum, videos, and virtual lessons.
 - Teachers and students will be responsible for maintaining the wetland habitat and will conduct water quality monitoring twice a month.
 - Students will upload their recorded data to an online database that GBF manages.
 - In-person classroom workshops may be available in the winter with safety measures.
 - Teachers and students complete a pre-survey before the program begins and a post-survey.
 - GBF will collect the grasses at the end of the program (see potential spring restoration options).

B. Wetland at Home

Students will receive individual marsh kits to care for at home. Each kit includes:

- A single marsh stem planted in a 1-gallon pot that is contained in a larger bucket filled with saltwater.
- Water quality monitoring and maintenance supplies (pH strips, salt, hydrometer, and measuring tape).
- GBF staff creates and delivers marsh kits to school campus. Teachers are responsible for coordinating student kit pick-up.
- Teachers will receive correlating curriculum, videos, and/or virtual lessons

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- Students will be responsible for maintaining the wetland habitat and will conduct water quality monitoring twice a month. Teachers will need to ensure this takes place.
- Teachers and students complete a pre-survey and a post-survey.
- GBF will collect the grasses at the end of the program (see potential spring restoration options).

*Wetland at Home kits cost GBF \$10 for each kit, so participants will be limited. If you are willing to pay extra for more kits, please let us know!

C. Hybrid Wetland at Home & on Campus

- For teachers who have both virtual and in-person students. In-person students will monitor wetland on campus while virtual students monitor their own individual stems.
- All of the previously stated information from Option A & B apply here.

Additional Requirements

- Teachers
 - Maintain consistent communication with GBF education staff throughout the year
 - Complete a teacher pre-survey before the program begins and a post-survey at the end.
 - Attend class virtual workshops and manage student participation.
 - *Options A & C:* Submit a wetland maintenance plan in the event of school closures (plan template will be provided).
 - *Option B*: Ensure students watch all related Wetland at Home videos and care for their plants individually.
- Students
 - Complete a student pre-survey before observing Get Hip to Habitat lessons or videos.
 - Participate in class virtual workshops (includes enabling video and audio during zoom lessons)
 - Submit wetland data to an online database that GBF manages.
 - Complete a post-survey after completing Get Hip to Habitat lessons or videos.

General Timeline (*subject to change*)

- A. August September
 - Complete Get Hip to Habitat application and hear back from GBF
 - Discussions with GBF staff to decide specifics (# wetland habitats on campus or # kits)
 - Virtual meeting with GBF staff prior to beginning Get Hip to Habitat
- B. Mid-September November
 - Students and teachers complete pre-survey
 - Teacher schedules Program Introduction workshop (live virtual workshop or pre-recorded video available)
 - Wetlands delivered to campuses (campus wetlands and/or kits)
 - Students watch pre-recorded videos about wetland maintenance, start recording wetland data twice a month
- C. November-March
 - Teacher schedules additional live virtual workshops
- D. March-May
 - Marsh restoration and/or plant pick-up by GBF staff (discussions will be ongoing with teachers)
- E. May
 - Student and teacher post-surveys completed

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Wetland Data & Water Quality Parameters 2020-2021

Students will test and record the following parameters. Students upload their recorded data to an online database that GBF manages, and teachers will have access to the database as well as lessons relating to the monitoring data.

- Plant Height students use a measuring tape to monitor height.
- Plant Reproduction students count the number of stems grown over time.
- Salinity students use a hydrometer to test salinity and adjust salt levels as needed.
- pH students use pH strips to monitor pH levels.
- Algae students consistently remove any algae that grows on the surface of the water.

*Parameters are reduced from previous years due to the cost of individual student kits. If teacher want to test for temperature and dissolved oxygen, we ask that you provide materials for your students. On request, we can create how-to-videos for these additional parameters.

Potential Spring Options

At the end of the year students usually plant their cultivated marsh grass to restore a wetland site around the Bay. With the uncertainties of COVID-19, the restoration component will be decided closer to spring. Either way, students matured marsh grass will be used to restore habitat around the Bay. Cultivated marsh grass from 2019-2020 restored 1.38 acres of habitat so far! Potential options for this school year are listed below based on safety measures and school procedures and may be changed as needed.

- 1. It is safe to resume field events and students come to a site around the Bay to plant their marsh grass as a class.
- 2. Social distancing measures are still in place. GBF can accept small groups to plant marsh grass at a site around the Bay.
- 3. Everything is still virtual. Students return marsh grass to school for GBF to pick up. Students watch a personal pre-recorded video of GBF staff planting the accumulated marsh grass from H2H.