

VIRTUAL ADVENTURES WITH THE GPS



TEACHER RESOURCES

IN THIS PACKET, YOU WILL FIND...

- Guana Virtual Field Trip Learning Goal and Scale
- Teacher Directions for Before, during, and after the field Trip
- Data Collection Card (please print for each student)
- Beach Article (optional to print for each student)
- Marine Debris Article (optional to print for each student)
- St. Johns County School District Online Commenting Guidelines

LEARNING GOAL AND STANDARDS

3rd Grade Standards

- SC.3.N.1.2 Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.
- SC.3.N.1.3 Keep records as appropriate, such as pictorial, written or simple charts and graphs, as investigations conducted.
- SC.3.N.1.5 Recognize that scientists question, discuss, and check each other's evidence and explanations.
- SC.3.N.1.6 Infer based on observation.
- LAFS.3.RI.1.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for answers.
- LAFS.2.RI.2.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
- LAFS.3.W.2.6 With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.

3RD GRADE LEARNING GOAL

I WILL BE ABLE TO CONDUCT, COMPARE, AND RECORD DATA IN A SCIENTIFIC INVESTIGATION

LEARNING GOAL AND STANDARDS

4TH GRADE STANDARDS

- SC.4.N.1.1: Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.
- SC.4.N.1.2: Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups.
- SC.4.N.1.6: Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.
- LAFS.4.RI.1.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text
- LAFS.4.RI.2.4 Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area*.
- LAFS.4.W.2.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

4TH GRADE LEARNING GOAL

I WILL BE ABLE TO CONDUCT, COMPARE, AND RECORD DATA IN A SCIENTIFIC INVESTIGATION.

SCALE

4	I can apply my knowledge of a Scientific Investigation in a real-world setting.
3	I can conduct, compare, and record data in a scientific Investigation.
2	I can conduct a scientific investigation with some errors and/or assistance needed.
1	I can name some features of a scientific investigation, but do not yet know how to conduct one. *Names features of Scientific Investigation (observation, questions, predictions, collect data, draw conclusions)
I do not understand this yet.	

DIRECTIONS

Before the Virtual Field Trip

1. Join the Teacher Edmodo Group (Code: q5axqi). This is where you will access the videos to show your class. We will post the videos one at a time during the live event.
2. Check your email for updates. We will send you the group code for your students to join prior to the event.
3. Review commenting rules for Edmodo (*see attached*). Students need to use the Edmodo notes and comments for academic purposes only.
4. Make copies of the Data Collection Cards for each student. You may also choose to have students work in small groups.
5. (Optional) You may also choose to print the articles if you would like your students to have a paper copy. The articles will be posted on Edmodo for students to read online.

DIRECTIONS

During the Virtual Field Trip

1. Log in to Edmodo and open the Guana Virtual Field Trip Teacher Group.
2. Help your students log in to the Guana Virtual Field Trip Student Group.
3. As videos post to the Edmodo wall, please open them and press play with your students.
4. After your class has viewed the video, reply to the post with **done** to let us know that you are ready for the next video or activity.

After the Virtual Field Trip

1. Register for one of our follow up Adobe Connect sessions where students will have the opportunity to interact with Guana scientists.
2. Stay tuned for more Virtual Field Trips coming later this year!

GTM NERR Cleanup Data Card

Please fill out the entire data sheet.

Dear Estuary Explorer:

Thank you for your hard work, dedication, and valuable time spent for this important cause! We appreciate your commitment and passion for oceanic and estuarine conservation issues. Our data cards are compiled and summarized to generate final reports filled with information that will aid GTM in tackling marine debris issues in our area.

Cleanup Site Information

1. Cleanup Date: _____
 2. Estimated time of Cleanup: _____
 3. Category of Cleanup (choose one): **Beach Dam**
 4. Site Location (choose one): **Gate Beach South Beach Middle Beach North Beach**
- Estimated Time Spent on Cleanup (Please remember to record your hours): _____
- Amount of People Participating in Cleanup: _____
- Total Number of Buckets (Trash Bags), Filled at this Site: _____

Type of Debris	Number	Type of Debris	Number
Aerosol Cans		Fishing nets	
Aluminum/Tin Cans		Flip-flops	
Bags (paper)		Food wrappers (paper)	
Bags (plastic) baggie, trash, retail		Food wrappers (plastic)	
Balloons and/or string		Gloves (non-rubber)	
Batteries (acidic and alkaline)		Gloves (rubber/plastic)	
Beverage bottles (glass)		Jars (glass)	
Beverage bottles (plastic)		Jugs/containers (plastic)	
Bottle or container caps (metal)		Non-food related plastic packaging	
Bottle or container caps (plastic)		Pallets	
Building materials (specify)		Paper and cardboard containers or pieces	
Buoys and floats		Personal care products	
Chemicals and chemical containers		Plastic or Styrofoam fragments	
Cigarette lighters		Rope (non-plastic)	
Cigarette packaging		Rope or small net pieces (plastic)	
Cigarette		Silverware, plates, carry-out (plastic or Styrofoam)	
Clothing or shoes (non flip-flops)		Six-Pack rings	
Crab/Lobster/Fish trap		Straws or straw wrappers	
Cups and tops (including Styrofoam)		Styrofoam packaging	
Fabric Pieces		Tires	
Fireworks		Towels/rags	
Fishing lures and line		Toys (plastic)	

Injured or Deceased Animals

List any animals found during the Cleanup. Record if there is evidence of entanglement with marine debris, for example: fishing line, fishing nets, balloon string/ribbon, plastic bags, etc.

What type of item did you find the most of?

What was the most peculiar or interesting item you collected? _____

Was there a presence of dead fish/small bait fish kills near the dam? _____

If so, approximately how many? _____

Animal	Alive or Dead	Entanglement Debris	Banded/Tagged?

**Thank you for helping to help keep
our coast clean!**

The Wrack Line Is Full of Treasures!

Although you may not be familiar with this term, I'm sure you've searched through and near it looking for whatever "beach treasures" enticed you. Wrack lines are linear piles of marine debris (both natural and manmade) that get washed up on the beach from incoming waves and tides. Typical debris includes seagrasses, algae, seeds, and mangrove leaves, along with sponges, soft corals, shells, egg cases, and worm tubes. Unfortunately, the wrack line is also often a reminder that marine debris has become a common site in the marine environment; plastics, fishing gear, and drift wood are common finds.

Regardless, the wrack line is an important part of the beach ecosystem. The size and duration of the wrack line can vary depending on storm activity, winds, and tide conditions. Once established, the wrack line provides shelter for a variety of animals such as insects, crabs, and amphipods thus making it a vital component of the coastal ecosystem. In addition, wrack lines serve as a food source for a variety of animals including shorebirds and raccoons. The organic material within the wrack line also provides critical nutrients to dune vegetation, and helps to stabilize shifting beach sands so new dunes can form.



A wrack line on St. Augustine Beach

Why is Marine Debris a Problem?

Entanglement: Common items, such as fishing line or nets, strapping bands and six-pack rings, can hamper the mobility of marine animals. Once entangled, animals have trouble eating, breathing or swimming, all of which can have fatal results.

Ingestion: Birds, fish, and mammals often mistake plastics and other debris for food. Many endangered albatross birds and chicks have been found dead with stomachs full of plastic, including bottle caps and cigarette lighters. Sea turtles mistake plastic bags for jellyfish, one of their favorite foods. With debris filling their stomachs, animals have a false feeling of being full, and may die of starvation.

Disperse invasive species: Marine debris can provide suitable habitat for marine species, such as oysters, barnacles, or plants, to collect upon. As debris is carried away by the currents, so are the inhabitants. This process can potentially speed up the spread of invasive species.

Endanger human health: Beach visitors can be injured by harmful debris on beaches, such as broken glass and sharp metals. Toxic pollutants can also be transferred up the foodchain and consumed by humans.

Hurt businesses and tourism: Increased amounts of debris on popular beaches can make beaches less attractive to visitors, resulting in a decrease in visitation and loss of money to the local community.

Damage to shipping vessels: Marine debris causes damage to shipping vessels through collision, entanglement in propeller blades, and clogging of water intakes for engine cooling systems.

SJCSD Online Commenting Rules

Blogging or Posting Comments in Online Educational Forums (Glogster, Blogs, Edmodo, etc.) are about reading, thinking, learning and responding. It is a privilege to be able to do so and the same rules that apply for using technology (Acceptable Use Policy) apply here.

Respect digital privacy:

- Use your first name only to identify yourself.
- Always log in ONLY as yourself.
- Never post your home email, street address, phone number, or school name.
- Don't share specifics of yourself that involve time and location (example: where & when your soccer practice is). Posts should be school-related only.

Respect yourself and others with the tone of your comment:

- Be polite, friendly, and encouraging.
- Respond to others thoughtfully and respectfully.
- If you disagree, don't be rude about it; give constructive (helpful) feedback.
- You are broadcasting yourself. Present yourself in the best possible light.

Respect your learning with the content of your comment:

- Keep your comment ABOUT what you are learning.
- Don't say random stuff or get really silly or talk about things unrelated to your learning.
- Avoid texting shortcuts like *u* for *you* and *l8r* for *later*.

Respect writing by proofreading your comments:

- *Try to fix your spelling mistakes.*
- *Use capitals in the right places:* people's names, places, the beginning of a sentence, and on "I" – *no evil i's.*
- Do not use all capitals, it is the same as yelling.
- *Punctuate properly:* period at the end of a sentence, space after a period, comma, or end bracket. One "!" will do: you don't need a string of exclamation marks.
- Remember, you are putting your best self forward, so polish your comments.

Any postings that are inappropriate according to the Student Code of Conduct and/or SJCSD AUP will result in disciplinary action and removal of commenting privileges. Online learning communities are for academic purposes ONLY- so please respect its intentions.