HANDOUTS

Explorer's Code

The National Geographic Society believes that all students are natural explorers and that their curiosity and sense of adventure can launch them into a life of learning about and caring for our planet's inhabitants and resources.

Embracing the Explorer's Code is the first step of the GeoChallenge for students, GeoChallenge Coordinators, GeoChallenge Coaches, and volunteers.

1. As a group, read and discuss the following.

   National Geographic Explorer's Code

   - I am curious about the world and how it works. I seek out new and challenging experiences.
   - I am responsible. I am concerned for the welfare of other people, cultural resources, and the natural world.
   - I am respectful. I consider multiple perspectives, and honor others' views regardless of differences.
   - I appreciate our interconnected world. I value knowledge and how it increases my ability to solve global problems. This includes knowledge about human cultures, wildlife and habitats, and the changing nature of the planet.
   - I observe, research, and document the world around me, and attempt to make sense of my observations.
   - I collaborate with others to achieve goals.
   - I communicate experiences and ideas through language and media.
   - I solve problems. I generate, evaluate, and implement solutions to problems.
   - I am a decision maker. I am able to identify alternatives and weigh trade-offs to make well-reasoned decisions.
   - I am empowered to make a difference. I act on curiosity, respect, responsibility, and adventurousness, and I persist in the face of challenges.

2. Each team member, the Coach, and Coordinator should sign below indicating their willingness to adhere to these shared values as they work on the GeoChallenge.

Appraisal Rubric

When reviewing GeoChallenge projects, appraisers will use a rubric based on the following criteria to score and provide feedback on each project. The questions below the criteria let you know what the appraisers will be looking for in each GeoChallenge project.

The Solution	**Up to 100**
Effectiveness in addressing the reduction of plastic pollution *Is the solution clearly related to the problem? Does the solution help others engage with the issue? Does the team explain how their solution works? Does the team discuss how their solution will or could reduce plastic pollution? Does the video provide insightful discussion or analysis of the problem?*	Up to 50
Evidence of research *Is there evidence of research? Is the research reflected in the solution? Does the team provide evidence to support their solution?*	Up to 15
Innovation of the solution idea *Is the solution idea or concept new or unique? Does it express ideas in a new way? Does it successfully push boundaries? Does it provide a new approach to or improvement on an existing solution?*	Up to 20
Creativity of the solution design *Does the team use common materials or processes in a new, clever, or surprising way? Does the solution help others understand the urgency of the plastic pollution problem in new or unexpected ways?*	Up to 15
The Map	**Up to 60**
Communicating the team's source to sea story *Does the map show the team's chosen waterway and surrounding region? Is the map appropriate for the purpose? Does the map accurately depict the major geographic features of the region?*	Up to 20
Creativity *Is the map visually appealing and designed with a distinct style? Is it made of unexpected materials? Do the creative elements enhance the storytelling aspects of the map?*	Up to 20
Presence of required elements *Does the map have a north arrow, map scale, and legend? Does the map show the location of the solution and the chosen waterway's outlet to the sea?*	Up to 20
The Sources List	**Up to 25**
Sources List review *Are there items from a variety of sources (e.g., books, encyclopedias, databases, internet, interviews)? Are primary sources used? Do the sources seem credible? Does the team use a consistent format for their Sources List? Are the citations complete? Are images and media properly cited and credited?*	Up to 25

Big Think

National Geographic Explorers think about and discuss the big picture before tackling a problem. Think like an explorer and use these guiding questions to help define the scale and scope of your project. Discuss the questions below with your team. It might be helpful for your team to pick one area to focus on—upstream, midstream, or downstream—as you create your solution.

Upstream – *Plastic comes from somewhere.*

More and more plastic is created each year. Where does it come from? Are all plastics bad? What new materials could be as useful as plastic but more Earth-friendly? Could national, state, or local policies or regulations reduce the use of single-use plastic? How can individuals be persuaded not to use plastic? What actions can individuals take to avoid using plastic? **What is your solution for preventing plastic from being used, sold, bought, or even manufactured to begin with?**

Midstream – *Plastic is everywhere*!

We use plastic for lots of things—sometimes only once. Only 9 percent of the world's plastic is recycled. How can we reuse and recycle more plastics? Can existing plastics be made into new, practical, or artistic things? How can packing materials, straws, baggies, and plastic bottles be used more than once? Does replacing plastic always make sense? **What is your solution to better manage plastics already in your home, school, and community?**

Downstream – *Plastic lasts forever.*

Many plastics are not reused or recycled and end up entering the waste stream. Without intervention, plastics end up where they don't belong, like in rivers, lakes, and finally our ocean, where they harm marine life. Whether in a landfill or the deepest ocean trench, plastics do not go away on their own. What actions could individuals, organizations, or governments take to deal with mismanaged plastics? What is your solution for plastics that have already been mismanaged and are polluting our waterways?

Tackling Plastic! Challenge Brief

Each team must fill out and upload this completed form along with their video. All project elements are due January 15, 2019, by 11:59 PM EST.

Team name:

Team members:	

Coach's name:

Project name:

In your description, include what type of solution your team is presenting (physical model, work of art, visual presentation, event, or call to action).

Short description of your solution (75-100 words):

Sources List Guide

Your team will use many sources to gather information for your GeoChallenge project. You can interview experts, do internet searches, and find reference materials in the library, just to name a few. Your group's ultimate goal is to use all that information to create something new—a solution for dealing with plastic pollution.

As you are developing your solution, you will most likely be drawing ideas and inspiration as well as information from many resources. To "cite" a resource means to give credit to the source of your information or quote. If it's something that you didn't already know or that you read somewhere, you should cite that piece of information. It's OK to use other people's ideas to help you develop your project, you just need to give them credit for it!

It's also important to keep track of information and ideas along the way so that you can create a *Tackling Plastic!* Sources List to submit with your *Tackling Plastic!* project. The Sources List should cite the ideas, information, and quotes of others you have incorporated in your project.

There are different formats for citing sources like MLA, Chicago Manual of Style, and APA. Your *Tackling Plastics!* Sources List should follow the format recommended by your school or your GeoChallenge Coach. Most importantly, it should be consistent. Pick a format and stick with it!

Making your Sources List

- ❏ Work with your GeoChallenge Coach to choose a citation format.
- ❏ Write it down as you go! Make sure you write down the citation information as you are using a resource. Much easier than tracking it down later!
- ❏ Upload your Sources List with your other project materials. Include the following:
    - Team name
    - Project name
    - Formatted list of sources