

Little Marine Scientists: Conservation Education for Kids

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The Campaign

What is “Little Marine Scientists”?

- We are an organization dedicated to educating young students about ocean plastic pollution, conservation, and technology.
- We aim to inspire and spark interest in the generation of future scientists and researchers through a conversation on the Pacific Garbage Patch and a hands-on projects for kids.

TODAY'S STUDENTS ARE

TOMORROW'S WORLD CHANGERS!

Purpose & Impact

“Improved public understanding of the ocean and the importance of sustainable ocean use, or ocean literacy, is essential for achieving global commitments to sustainable development by 2030 and beyond” (Kelly, 2022)

01

Improving Ocean Literacy

Ocean health and conservation are rarely covered in elementary science programs, especially in landlocked schools.

02

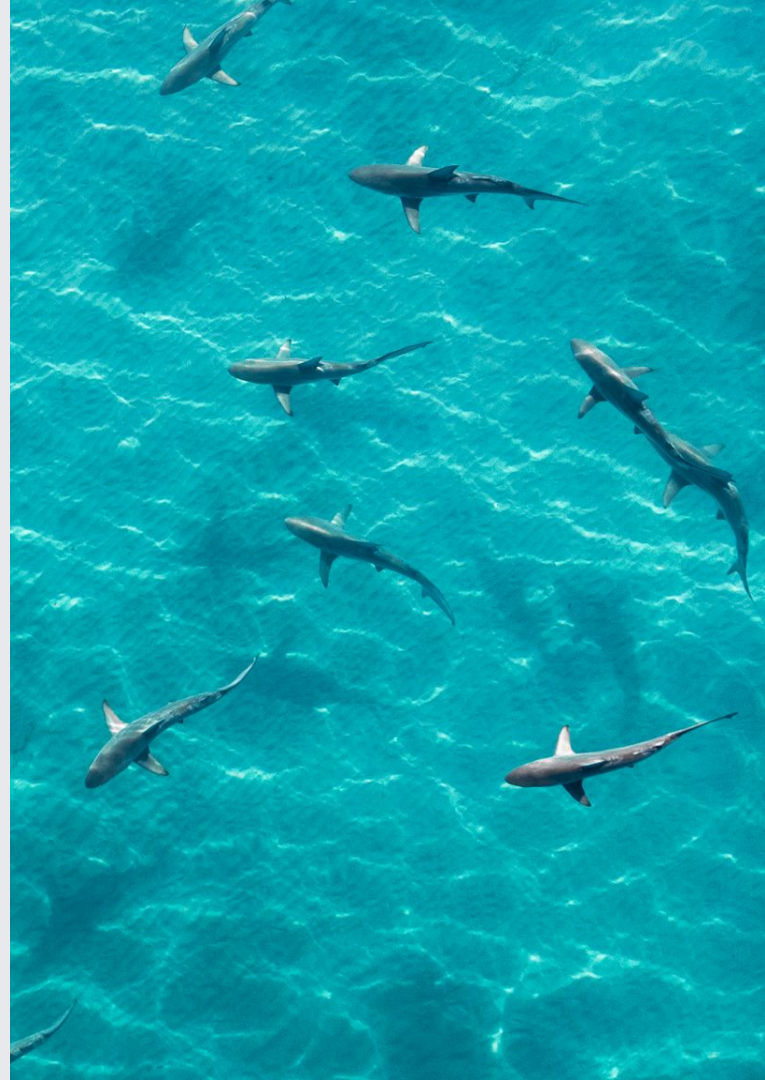
Inspire Future STEM Careers

By introducing the foundations early, it gets kids thinking about a possible future in ocean or conservation studies and allows them to build on their knowledge in the future.

03

Provide Tools For Teachers

Teachers around the world could recreate our lesson and project in their own classrooms as a part of their science curriculum.



Target Audiences

- *North American Students aged 10-15*
 - This age group is old enough to engage with the hands-on project and gain value from the education on ecosystems and pollution, but usually lacks this depth in traditional curriculum.
 - “North America (specifically the US) is responsible for generating the largest amount of plastic waste in the world” (Stemman 2023).
 - The US is our origin of operation, but a more global audience could be reached digitally or by individual educator duplication.
- *Educators of the above demographic*
 - By distributing the lesson plan and project online, other teachers around the world could introduce these topics to their students.

Marketing Channels

01 Digital

Instagram & Youtube:

- By posting our “lesson plan” to social media, we are able to reach a broader audience of people and even younger aspiring scientists, as well as teachers who could recreate our proposed lesson themselves.
- There is great potential to record our presentations and post to youtube for students to rewatch or view on their own time.

02 Educational/Interactive

Classroom Lesson:

- Our main form of communication for this project is a traditional lecture/lesson using slides geared toward a younger classroom audience (around 6th-9th grade). This lesson will discuss the Pacific Garbage Patch and current technology in the works to address the issue (such as plastic-eating fungi).

Science Project/Demonstration:

- The lesson will be coupled with an interactive project for students involving making plastic out of potato starch to encourage aspiring scientists and demonstrate new technology in the ocean conservation field.

Marketing Channels

01 Digital

Instagram & Youtube:

AFFORDANCES:

Reaching a broader audience outside of the specific schools/classrooms/conferences we would theoretically present to. Social media will also allow us to reach other teachers who could recreate our project in their own classes.

LIMITATIONS:

Online outreach is unpredictable in numbers and execution. The online lesson plan may not have the full effect of an in person engagement.

02 Educational/Interactive

Classroom Lesson/Demonstration:

AFFORDANCES:

One-on-one connections with a younger audience and creating awareness on a topic not necessarily covered yet in traditional school curriculum.

LIMITATIONS:

A much smaller number of people are reached through the in-person or classroom zoom method.

Bringing our lesson plan to panels/fundraisers specific for ocean conservation education could help address this limitation (World Ocean Day, Bow Seat Ocean Awareness Events, or a unique campaign event!)

Campaign Objectives

01

Raise awareness about microplastics -

Inform audiences about what are microplastics, the dangers of microplastics, and how they are impacting our marine species

02

Inspire a new generation of STEM researchers -

Advertise ways STEM researchers are our superheroes of sustainability and advocate for students to follow in this career path

03

Public Engagement -

Generate public participation in sustainable science experiments both at home and in schools through marketing towards educators and parents

04

Advocate for Ocean Sustainability in School Curriculums -

Promote ocean sustainability topics in schools to emphasize the importance of the ocean in climate change and coastal communities



Timeline

Time frame	Outcome
Phase 1 January - April 2024	<ul style="list-style-type: none">● Research sustainable experiments● Run test groups● Literature review on microplastics
Phase 2 April - August 2024 (Schools Summer break)	<ul style="list-style-type: none">● Compile classroom presentations with experiment methods● Create social media posts● Reach out to school districts
Phase 3 September 2024 - May 2025 (Academic School Year)	<ul style="list-style-type: none">● Start media campaign● Run promotional science experiment classes● Monitor engagement throughout the year

Budget

Phase 1

Activity	Cost
Research sustainable experiments	\$0
Literature Review	\$0
Run test groups	\$2,000
Total	\$2,000

Phase 2

Activity	Cost
Compile classroom presentations	\$0
Create social media posts	\$0
Reach out to school districts	\$0
Total	\$0

Phase 3

Activity	Cost
Media campaign ads	\$3,000
Promotional science classes	\$20,000
Travel expenses to schools	\$10,000
Total	\$33,000



Meet the Team

Jacqueline Stooks


*Bachelor's of Biomedical Science Student at ASU
Aspiring Wildlife Veterinarian*

Ellie Phillips

*Bachelor's of Biological Sciences Student at ASU
Aspiring Physician's Assistant*

Naaman Rivera

*Bachelor's of Business Law and Business Sustainability Student at ASU
Aspiring Corporate Compliance Officer*



Comparable Campaign



01

The Real Cost Campaign

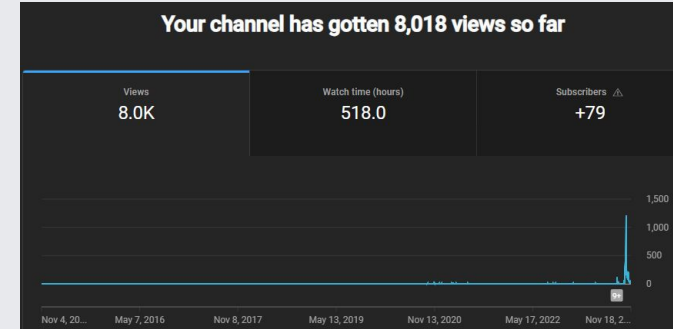
- Campaign focused on educating the youth on the dangers of smoking cigarettes and e-cigarettes
- This campaign (and others in the same vein as it) are organized and delivered through the U.S. Food and Drug Administration (FDA)
 - This is something that ideally we would try to emulate
 - Having a governmental organization behind our *Little Marine Scientists* proposal would be huge, as it would be guaranteed to effectively reach more people due to credibility as well as allow for an easier time working with schools to give our presentations
- The main marketing channel of this campaign is online advertising, primarily through social media and online video ads
 - This is similar to what we would like to do as an aside to our in-school presentations, and we can model the uploading of content to YouTube as educational resources relating to our goals

Methods, Strategy, and KPI

01

Online Analytics

- The best way to measure success of media campaigns is by using different analytics
- The YouTube ad on the previous slide has 26 million views in three years
 - This is impressive, however...
- Depending on the size of our social media pages/websites, we should expect certain amounts of engagement to continue to grow and reach the amount of people we would like to reach
- To ensure engagement for our social media posts, we will utilize advertising



02

Amount of Contact Attempts Made

- One of the challenges with giving presentations is determining how success should be measured
- In the case of business inquiries, our usage of a business email address is a great way to determine how many people are genuinely interested in our campaign
- Another way to measure success is how many schools are willing to have us give our presentation and get ratings on the website, the presentation itself, and fill our surveys to find out how we should improve
 - This will lead to further success

	Nano Influencer	Micro Influencer	Macro Influencer	Mega/Celebrity Influencer
	1K-10K	10K-100K	100K-1M	1M+
Instagram	5%	3.5%	2%	1%
YouTube	3.5%	3%	2%	1.5%
Facebook	2%	1.5%	1.25%	1%
Twitter	1%	0.75%	0.5%	0.5%
TikTok	18%	12%	8%	4%

References

- Bow Seat Ocean Awareness Programs*. Bow Seat Ocean Awareness Programs • Activating the next wave of ocean leaders through the arts, science, and advocacy. (2023). <https://bowseat.org/get-involved/events-exhibits/>
- Kelly, R., et al. (2022). Connecting to the oceans: supporting ocean literacy and public engagement. *Reviews in fish biology and fisheries*, 32(1), 123–143. <https://doi.org/10.1007/s11160-020-09625-9>
- Stemmann, Ava. “Plastic Pollution in North American Cities: A Growing Concern.” SWOP - Shop without Plastic, 31 Jan. 2023, www.shop-without-plastic.com/blogs/swop-blog/plastic-pollution-in-north-american-cities-a-growing-concern#:~:text=While%20countries%20in%20Africa%2C%20Asia,plastic%20waste%20in%20the%20world.
- Products, Center for Tobacco. “The Real Cost Campaign.” *U.S. Food and Drug Administration*, FDA, www.fda.gov/tobacco-products/public-health-education-campaigns/real-cost-campaign. Accessed 19 Nov. 2023.
- “Tiktok and YouTube Engagement Rate Calculator.” *GRIN*, Grin Technologies Inc., 15 Aug. 2023, <https://grin.co/influencer-marketing-tools/engagement-rate-calculator/>