

Shark Tank GMO Design Project

Driving Question: Do you have what it takes to win over the Sharks (your teachers) by creating a GMO that meets a global need?

Group Task: You will be designing a new plant with a modification (GMO) that meets a global or a regional need. You will then pitch it to the Shark Tank judges in a video with your partners. The need can be world-wide or regional. Keep it focused.

Shark tank presentations are **due May 19 & 20th** (3 pts). You will have part of today and all of the next class to work on your presentation.

In order to help you prepare your sales pitch, let's do some research.

Step 1: You will watch one presentation from an episode of Shark Tank on YouTube. While you are watching, take note of the things the entrepreneurs did well, and one thing they could improve. [Shark Tank Episode](#) Watch the Boom Boom presentation only (start at 13:55).

1. What are two things about their pitch they did well?

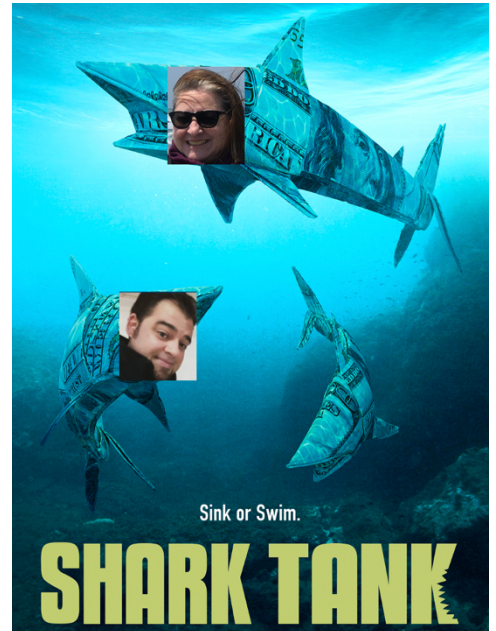
The first part before the sharks started asking questions, they had a really bright and playful tone which grabbed the audience's attention and held onto them. The second good thing that they did well was how they used their tone to show that they were really interested in their product and that they were really confident that this will help a lot of people with their product.

2. What is one thing about their pitch you would improve?

We can up our voice pitches and talk very confidently about our product so that the audience and the judges know that we are very confident that our product will help various other people and solve multiple global problems, for example, global warming.

3. What is one thing that stood out from the Q&A portion?

They already had a lot of numbers that they could answer their questions with. All of them were used to their benefit and they were confident in their answers.



Step 2: Watch [How to Pitch Your Business in 60 Seconds](#). Take note of the tips on how to sell something effectively in 60 seconds. Answer the questions below:

1: Solve a Problem the Client May Have

How does this apply to our GMO?

The problem of global warming is severely affecting our everyday life. Governments of countries are concerned about how global warming has been changing the environment of the Earth negatively. Especially, carbon emissions caused by greenhouse gases are increasing the average temperature of Earth, making the ocean more acidic, and making the wildlife extinction rates higher.

2: Give a Solution

How does this apply to our GMO?

Planting trees can be a solution to alleviating the effects of global warming as it consumes the CO₂ in the air and converts it into O₂. Trees are very important in managing the ecosystem because they provide nutrients to the soil and provide shelter for animals.

3: Sell Your Mission

How does this apply to our GMO?

- The genetically modified Baobab trees will help solve global warming by making it the baobab tree to grow faster than the normal speed a tree would (At least 20 years).

Baobab Tree



Step 3: As a group discuss the following and make some decisions after you decide on your GMO organism:

1. What are some good OPENING points you could begin with? (The problem)
The problem we are trying to manage is solving global warming.
2. What are some points to bring up in the middle that are important SELLING points for the judges to know? (Introduce the solution)
 - The characteristics of our new modified baobab tree and how it is going to solve the problem.
 - Genetically modified baobab tree.
 - Compare/Contrast Original product and our GMO product

3. What are some good CLOSING points you could end on? (Close the sale)
Your sales pitch needs to be **60 to 90 seconds** - NO longer. All team members need to speak for equal lengths of time. You will present live or create a video (teacher choice). Having a clear, visual background for your presentation that is professional and adds to your sales pitch is needed.

Who will present each speaking part:

- **Opening:** Jake Choi - Problems
- **Middle:** Leo Kim - Traditional solution
- **Closing:** Andy Oh - Why our product is better than the traditional solution

Step 4: Shark Tank Brainstorming & Research

Identify the GMO you will create: Genetically Modified Baobab Tree

These questions are designed to help you focus your research and presentation. Because 90 seconds is a pretty short time, *you are **not** going to read off answers to these questions*, they are to help you create a focused and coherent 60 second ad for your GMO.

With your group, do research and discuss the following:

1. What organisms will you move genes to and from?
 - a. We will move the Hybrid Poplar tree's gene that allows them to grow rapidly in less than 6 years to a normal baobab tree.
2. What will be your host organism to make copies of the gene? Why did you choose it?
 - a. The host organism will be the baobab tree as the country that has the most desertification is Africa and the main tree that can be seen in Africa is the baobab tree.
3. How will the gene be moved? (What is the science behind creating a GMO?)
 - a. Deletion → Deleting the part of the gene that allows the Hybrid Poplar tree to grow rapidly in order to move it to the Baobab tree.
 - b. Insertion → Insertion of Hybrid Poplar's genes to Baobab tree's genes.



4. What is the problem you are trying to solve? Why should people care?
 - a. The problem we are trying to solve is global warming. People should care about this as global warming is affecting every single one of us humans and affects our everyday lives.
5. How is your GMO a solution to that problem? Is it relevant and feasible?
 - a. Our GMO can solve this problem as planting trees is one of the most reasonable solutions to global warming. But, the problem about this is because the trees take a very long time to grow. By genetically modifying the tree to grow
6. How is your product different from anything else already on the market?
 - a.
7. Who / what countries will benefit the most from your GMO? Why?
 - a. The county that will most benefit is the one that has the most problems with deforestation, Africa, but it would also benefit everyone of the world as by solving this problem, we can solve or lessen the effect of global warming.
8. How will you make sure the right people have access to your GMO? (Do you plan on selling it? Giving it to a nonprofit? Etc.)
 - a. We are thinking about providing the GMO sapling, Kambia to non-profit organizations that plant trees and care about the environment. We will start a campaign or donation so that we are able to make money that will enable us so that we will be able to produce more saplings.
9. If you were one of the sharks, why should they choose your product? What makes your idea special?
 - a. The sharks should choose our product as
10. What are some possible catchy company names?
 - a. Kambia Tree

Step 5: Evaluations of the Presentations: Your final grade will be decided by... **Shark Palmer or Shark Shea (80%) & self and peer evaluation(10% each).**

GMO Project Self and Peer Evaluation

Directions: On a scale of 1 to 5 (1 = low, 5 = high), please rate yourself and your peers on their professional collaboration.

Name	Completed Background Research 1-5	Contributed to Sales Pitch (Presentation) 1-5	Dependable, Respectful, Positive Team Member 1-5	Productivity and Use of Time 1-5	What Grade Have They Earned? A to F
Self:					



Member 2:					
Member 3:					

An Example of a GMO pitch, including a visual.



“Clean and Green” company inserted a methane digesting gene from bacteria into plant cells. This would allow plants to not only photosynthesize but break down methane in the atmosphere as well.

Other Examples:

[SeaWheat](#)

[Everblossom](#)

