Shark Tank Project Overview

PURPOSE/GOAL
1. Design and create your own polymer product from a “starchy” food.
2. Convince a panel of investors to invest in your product, a plastic made from a starchy food source.

PART 1 - PRODUCT DEVELOPMENT
• Research – (at least 5 credible sources, specifically cite)
  o You have to have a reason for why you make decisions in your design
  o Keep detailed track of articles/cites you use to inform your decisions
• Procedure – based on your research and the potato polymer create your own procedure for your product
• Peer Evaluation – Review other groups procedures and get feedback on yours to make revisions
• Create product – synthesize your polymer
  o Note changes in procedure as you go
  o Take pictures
  o Observations
• Test properties of product – Record results
• Improve design/Remake
  o Explain changes and why (refer to sources)

PART 2 - SCIENTIFIC ARTICLE (short)
• Basic Info/Format: Title, authors, date, 12 pt., simple font, double spaced, heading for each section
• Research (this will be evident throughout the article) – at least 5 credible sources, specifically cite what information came from these sites.
  o Example: As stated in Roger Thames’ article...
• Introduction (6-8 sentences)  This is more broad scope
  o Grab interest with facts, statistics
  o Why is this topic important/significant
  o What are polymers
  o What are the current practices/understandings
• Background (6-8 sentences)  This is more specific to what you are doing
  o Why are you doing this (not because it is an assignment), what is your goal?
  o Define terms the reader should know
  o Explain any processes the reader should know
    ▪ Include potato polymer info
  o How will this work, what reactions, interactions, etc. are taking place?
• Procedure – EXPLAIN/SUMMARIZE (6-8 sentences)
  o Only include the major aspects/steps in the process and explain their purpose/importance.
  o What changes did you make from the potato polymer and why? (cite sources)
    ▪ Type of food used
    ▪ Amount of glycerol used
  o Procedure revision – after the peer review what improvements did you make to your procedure
• Discuss Results/Conclusions (6-8 sentences)
  o Any statement claimed must be supported by the data
  o Provide at least 1 table or graph, refer to it in the text
  o Was your goal achieved?
• Identify possible applications and future work ideas (4-6 sentences)
  o How could this be used, what products, companies, etc.
  o If you had a $1,000,000 investment how would it change? Types of equipment, quality of starting material, etc.?
Bibliography – properly cite sources and indicate in the article where cited sources were used.

- At least 5 sources
  - 3 of the 5 must be from .edu, .gov, or .org domains. (more than 3 is ok)
- If you did not use a source to influence your decisions, do not cite!
- ONLINE JOURNAL: Author(s) of article. Date of publication. Title of article. Title of journal (edition). [date updated; date accessed];Volume(issue):location. Notes.
- WEBSITE: Title of Homepage. Date of publication. Edition. Place of publication: publisher; [date updated; date accessed]. Notes.

PART 3 - PITCH

- PowerPoint
  - No more than 7 slides
  - No more than 6 bullet points on a slide
  - No more than 4 sentences on a slide
  - No more than 2 pictures on a slide
  - No more than 3 different colors on a slide (in terms of font, background, etc. excludes pictures of course)
  - No transitions or special effects
  - At least 1 graph or table (clearly and properly) labeled

- ONE Additional Visual or Artistic Aid
  - Poster, pamphlet, video, jingle, etc.
  - Must add some value to your product

- Presenting
  - DO NOT read directly from the slide
  - Provide only necessary detail about production, research, and data.
    - We don’t need to know every single detail
    - But we need to know enough to understand and see the worth
  - You are SELLING your product, not giving a traditional classroom presentation!
    - Make it appealing, interesting, engaging
    - Why would/should we invest in your product?
    - What makes it more useful, cheaper, better than others?

PROJECT TIMELINE:

1. Finalize & Turn in Procedure you will follow, get peer evaluated before.
2. Have done your procedure at least twice and collected data on properties.
3. Completed & have practice pitch and finished science article.
4. Give pitch to panel of judges (make sure you watch an episode of shark tank!)