**Lesson** **3**

**Client Pitch Challenge**

A picture containing graphics, graphic design, logo, design

Description automatically generated

**Activator/Bell Ringer/Starter**

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Reflect on yesterday’s reading to respond to this question.

What factors should be considered when choosing materials used to produce a product?

**Client Pitch Challenge**

**Directions**

1. The Scenario: A bioplastics manufacturer needs our help. They have been developing a bioplastic that they can manufacture with a range of different properties that can be used in different applications. They need help, however, pitching the value of bioplastics to different clients.
2. Your task: Choose which plastic item you would like to redesign using bioplastic. Complete a small group activity to brainstorm possibilities. Choices have to make use of properties the manufacturer can manipulate (e.g., flexibility, texture).

Example objects could include:

1. Water Bottles
2. Reusable Shopping Bags
3. Biodegradable Trash Bags
4. Or, a green alternative to a traditionally plastic product of your choice (check with me for permission!)
5. Once you have brainstormed some items, ask classmates for feedback on which items they would like to have and why. Record different items and their application, and what material properties are important for those items.
6. You will create a pitch for your product in the form of several Google or Jamboard slides. The pitch should be colorful, interesting, contain pictures and must include:
   1. A comparison and a contrast of your Green Chemistry product with the traditional version of your product. There should be at least 5 points of comparison. You may discuss their effects on the environment, their costs, additional benefits/deficits to humans, how human needs for the purpose of this product came into play, etc…
   2. What makes this a “green” product? This should include an assessment of the product using the Orb-It Orb and Tool to assist you (Discussed further in lesson 5).
   3. How is Green chemistry used in its production. This should include a brief description of the manufacturing process.

1. You may use Google to find information about your product. Suggested websites are also provided below. Please make sure to include a second slide or second board with a list of the references you used for this assignment.
2. Possible resources:
   1. For Water Bottles
      1. [Here’s a Water Bottle You Can Actually Eat](https://www.smithsonianmag.com/innovation/Heres-A-Water-Bottle-You-Can-Actually-Eat-180951185/)
      2. [Edible Water Bottles and the Strange Science of Spherification](https://www.cnet.com/news/appliance-science-edible-water-bottles-and-the-strange-chemistry-of-spherification/)
      3. [London Marathon Replaces Water Bottles With Biodegradable And Edible Water Pouches](https://www.boredpanda.com/plastic-seaweed-water-pouches-london-marathon-ooho/?utm_source=google&utm_medium=organic&utm_campaign=organic)
      4. [Notpla - We Make Packaging Disappear](https://www.notpla.com/)
   2. For Reusable Shopping Bags
      1. [6 Best Reusable Shopping Bags For Smarter Shopping](https://www.ecowatch.com/best-reusable-grocery-bags-2650610262.html)
      2. [Sustainable Shopping - Which Bag is Best?](https://www.nationalgeographic.org/media/sustainable-shoppingwhich-bag-best/)
      3. [Plastic, Paper or Cotton: Which Shopping Bag is Best?](https://blogs.ei.columbia.edu/2020/04/30/plastic-paper-cotton-bags/)
      4. [Here's how many times you actually need to reuse your shopping bags](https://phys.org/news/2018-08-reuse-bags.html)
   3. For Biodegradable Trash Bags
      1. [Top 5 Best Biodegradable Trash Bags of 2020](https://bioplasticsnews.com/2020/04/18/top-5-best-biodegradable-trash-bags-2020/)
      2. [Are biodegradable bags better than plastic? It’s complicated.](https://www.popsci.com/biodegradable-compostable-bags/)
      3. [How biodegradable plastic bags don’t live up to their name](https://www.pbs.org/newshour/science/how-biodegradable-plastic-bags-dont-live-up-to-their-name)
      4. [Why Waste It? Let’s Sort it!](https://www.burnside.sa.gov.au/files/assets/public/environment-amp-sustainability/waste-recycling-amp-composting/waste-collection/what-goes-in-which-bin/compostable-degradable-and-biodegradable-bags-fact-sheet.pdf)

**Criteria for Success**

**Pitch contains…**

|  |  |  |  |
| --- | --- | --- | --- |
| **Criterion** | **Available Points** | **Student Self-Score** | **Earned Score** |
| Name of your product | 5 |  |  |
| Provide a comparison and a contrast of your Green Chemistry product with the traditional version of your product. There should be at least 5 points. You may discuss their effects on the environment, their costs, additional benefits/deficits to humans, how human needs for the purpose of this product came into play, etc… | 15 |  |  |
| What makes this a “green” product. Use the Orb-It Orb to assess. | 15 |  |  |
| How is Green chemistry used in its production? This should include a brief description of the manufacturing process. | 15 |  |  |
| Graphic organizer providing information about the product | 15 |  |  |
| Presentation:   * Is colorful, interesting, and contains pictures. * Uses appropriate grammar, punctuation, and spelling | 20 |  |  |
| Contains a Works Cites/Reference Slide/Board | 15 |  |  |
| **TOTAL** | **100** | **/100** | **/100** |

**Grading Rubric**

**Content Grade**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Criterion** | **Available Points and Description** | | | |
| Name of your product | **5**  Present |  |  | **0**  Missing |
| Provide a comparison and a contrast of your Green Chemistry product with the traditional version of your product. There should be at least 5 points. You may discuss their effects on the environment, their costs, additional benefits/deficits to humans, how human needs for the purpose of this product came into play, etc… | **15**  The comparison and contrast contains at least 5 points. It is written in complete sentences or displayed extremely clearly in a graphical format. | **10**  The comparison and contrast contains only 3-4 points. It is written in mostly complete sentences or displayed fairly well in a graphical format. | **5**  The comparison and contrast contains only 1-2 points. It is not written in complete sentences or displayed in a comprehensible graphical format. | **0**  Missing |
| What makes this a “green” product. Use the Orb-It Orb to assess. | **15**  Student clearly describes in complete sentences what makes the product green and includes a complete evaluation of the product using the Orb-It Orb. The description is accurate to the product. | **10**  Student clearly describes in mostly complete sentences what makes the product green and includes a mostly mostly complete evaluation of the product using the Orb-It Orb. The description is fairly accurate to the product. | **5**  Students description is difficult to understand. They do not necessarily use the Orb-It Orb to evaluate the product. | **0**  Missing |
| How is Green chemistry used in its production. This should include a brief description of the manufacturing process. | **15**  The student correctly explains how this product utilizes green chemistry, specifically designing the manufacturing process. The description is written clearly using easy to understand language and/or uses graphics to explain it well. | **10**  The student explains how this product utilizes green chemistry, specifically designing the manufacturing process. The description is written mostly clearly, but may use high-level language and/or uses not very descriptive graphics to explain it. | **5**  The student explains how this product utilizes green chemistry incorrectly. Using descriptive written language and/or graphics. | **0**  Missing |
| Graphic organizer providing information about the product. | **15**  The student provides a graphic organizer, which is complete and demonstrates that the student has information about the product by providing a well developed description of the product, a thorough list of the characteristics of the product, and an extremely descriptive and well thought out sentence with a drawing. | **10**  The student provides a graphic organizer, which is complete and mostly demonstrates that the student has information about the product by providing a well developed description of the product, a list of the characteristics of the product, and a somewhat descriptive sentence. There may or may not be a drawing. | **5**  The student provides a graphic organizer, which is only partially complete and somewhat demonstrates that the student has information about the product. There is a description of the product, a list of the characteristics of the product, and a somewhat descriptive sentence. There is no drawing. | **0**  Missing |
| **CONTENT TOTAL** | **/65** | | | |

**Style and Works Cited Grade**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Criterion** | **Available Points and Description** | | | | |
| Presentation:   * Is colorful, interesting, and contains pictures. * Uses appropriate grammar, punctuation, and spelling | **20**  Is colorful, interesting, and contains pictures.  Uses appropriate grammar, punctuation, and spelling at all times. | **15**  Is colorful, interesting, and/or contains pictures.  Uses appropriate grammar, punctuation, most of the time. | **10**  Is colorful, interesting, or contains pictures.  Uses appropriate grammar, punctuation, some of the time. | **5**  Is neither colorful, interesting, nor contains pictures.  Uses appropriate grammar, punctuation rarely. | **0**  Missing |
| Contains a Works Cited/Reference Slide/Board | **15**  Contains a works cited/reference slide/board using an appropriate reference method, such as APA/MLA or other method suggested by the instructor. | n/a | n/a | n/a | **0**  **Missing** |
| **STYLE AND WORK CITED TOTAL** | **/35** | | | | |

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| **PROJECT GRADE TOTAL… /100** |

**Ticket-Out**

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1. Provide cool feedback (areas that could use improvement) about how today went. You can discuss how the group work went, how the research went, how you feel the creation process is going, etc...

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| Your response: |

1. Similarly, provide warm feedback (positive feedback) about how today went. You can discuss how the group work went, how the research went, how you feel the creation process is going, etc...

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| Your response: |