**Lesson 2**

**Testing Flexibility**

A picture containing graphics, graphic design, logo, design

Description automatically generated

**Activator/Bell Ringer/Starter**

🔔

1. Return to your lab groups and select a job role for the day (look at descriptions from yesterday).

*Project Coordinator/Lead is… Project Architect is…*

*Project Resource Manager is… Project Documentation Specialist is…*

1. *Today we will be testing our bioplastics for flexibility . Work with your group to come up with a definition for what flexibility is and suggest a possible way to test the loops to measure their flexibility.*

*You want your tests to be:*

* Consistent - can be repeated across several loops
* Provides data that can be easily documented, such as in the form of measurements, in the making of drawings, or the use of very descriptive language.

|  |  |  |
| --- | --- | --- |
| *Characteristic* | *Definition* | *Possible way to test* |
| *Flexibility* |  |  |

*Here is a link to check out:* <https://qualityinspection.org/flexibility-plastic-china/> *Your group also can search testing options for flexibility.*

**Evaluating the Bioplastic Loops**

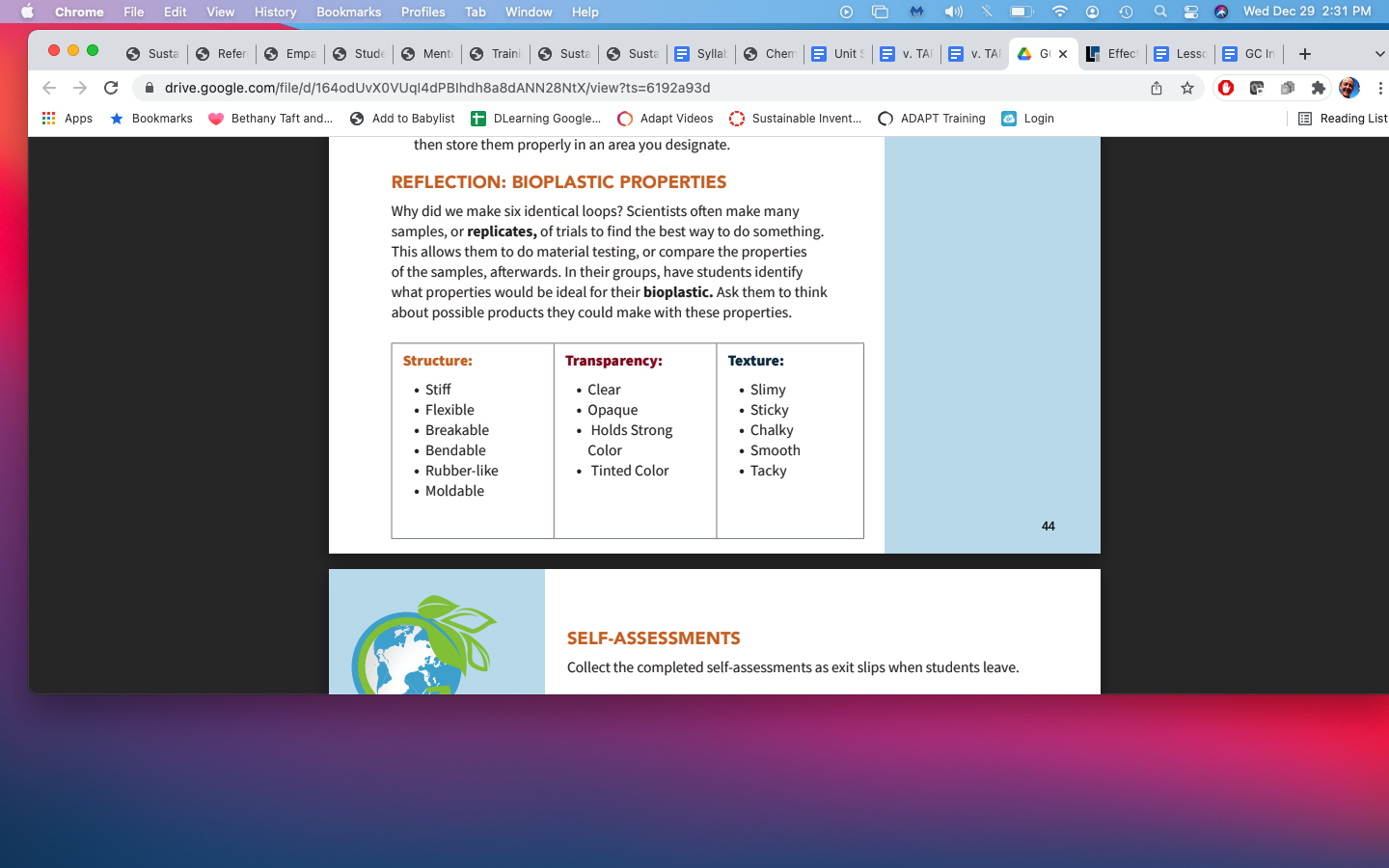
Today, we are going to test the loops we created in our last class for flexibility (doesn’t break if bent). Your group will test the loops you made as well as ones made by two other groups.

Based on our class discussion, what method will you use to test the loops for flexibility?

|  |
| --- |
| **Your answer:** |

Now, you are ready to make observations on one of your loops and on loops from two other groups in the class. Fill out the table below with your observations on:

1. Loop flexibility
2. Additional Observations or Notes
   1. Here are some adjectives to use in your descriptive observations.



Additionally, have a conversation with the members of the other groups. Find out what they did to follow the procedure and take note of anything that is different from how your group did it.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Flexibility Observations**  **+ Data** | **Notes to explain possible differences between loops** | **Other traits you notice (color, transparency, texture, structure)** |
| **Your Group** |  |  |  |
| **Group:** |  |  |  |
| **Group:** |  |  |  |

**Ticket-Out**

🎫

1. Looking at the data you collected about flexibility, what factors seem to increase loop flexibility?
2. What factors seem to decrease loop flexibility (make it more stiff/rigid)?
3. Describe connections you notice between a flexible loop and other properties/characteristics (transparency, etc)?

|  |
| --- |
| Your answer: |