Good Morning!
Welcome to the New York Botanical Garden.

Please respond to the following questions on sticky notes:

● What do I hope children will gain through work in science?

● How can science support language acquisition?
Introductions

• Judith Hutton - jhutton@nybg.org

• NYBG features and programs
  • Native Forest
  • Bronx River and Wetlands
  • Family Garden
  • Children’s Garden
  • Conservatory
  • Programs for Children, Teachers and Families
Logistics

- Morning routine
  - Sign in
  - Collect agenda and handouts

- Allergies
  - Please let me know if you have any severe allergies that are triggered by *being near or touching* any food or other item. (You will not be required to eat anything!)
Goals of our Institute

- Consider ways to engage young students with the natural world, with attention to considerations of developmentally appropriate practices.
- Engage in multisensory observation activities both indoors and outdoors.
- Participants will learn ways to connect plants and science to literacy, art and math.
Goals for the Day

- Begin to construct an understanding of plant structures and functions
- Explore diversity in plant structures
- Learn methods for starting plants from seeds and other plant parts in the classroom
Setting Agreements

- Have Fun
- Recognize and appreciate cultural complexity
- Be brave
- Support each other’s learning
- Listen for understanding
- Be truthful and speak up
- Participate

Turn to an elbow partner and discuss modifications to this suggested list of norms
Sound Partners

• Please do not open the canister!
• Shake the canister to hear the sound it makes.
• Try to find the person with a matching sound.
• Be prepared to:
  • introduce yourself!
  • tell the group about what was in your container
  • tell how you could use it in a classroom
Making a Stick Journal

• Your finished journal will have 16 pages. How many pieces of large paper will you need to make your journal?

• With a partner:
  • Explain the problem in your own way
  • Figure out and record a solution
  • When you put together your journal, include this page after your table of contents
Journal Set up

• Write “Table of Contents” at the top of the first page
• Skip a page and then number each page in the bottom outside corner
What is a Plant?

• Title your chart: “What is a Plant?”

• Sort the cards into two groups: Plants and Not Plants and tape them to your chart paper

• On your chart paper, make a list of characteristics for each group

• Use your chart to propose a response to “What is a Plant?” on chart paper.
Is it a Plant?

- Read page 1.
- How does it fit with your “What is a Plant” chart?
- Make any revisions you think are necessary to your chart and your definition.
Plant Parts

- We will go outside and find two different examples of
  - Stems
  - Leaves
  - Flowers

- Sketch and describe one of each in your journal

Hat ✧ Sunscreen ✧ Water
Lunch
Seeds We Eat

• Please add to the chart throughout the day and week as you think of new examples.
Seed Exploration

- Put the date at the top of a journal page and label the page “Seed Exploration”
- Make an entry in your Table of Contents for this page
- Spend a few minutes exploring and observing the seeds
  - Try sorting the seeds using the sorting mats
  - Look at the seeds using hand lenses or microscopes
  - Sketch and describe some of the seeds in your journal
  - Decide which seeds you’d like to try planting
Planting Seeds

- We will plant seeds today and observe them as they germinate this week.

- What do you want to observe and record about your seeds?

- Please make a plan for how you will record your data
  - which part of your journal will you use?
  - how will you organize your observations? you may want to make a table
  - will you use measurements? sketches? descriptions?
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>Grass</td>
</tr>
<tr>
<td>beans</td>
<td></td>
</tr>
<tr>
<td>Marigolds</td>
<td>Basil</td>
</tr>
<tr>
<td>cosmos</td>
<td>onion</td>
</tr>
<tr>
<td>cilantro</td>
<td>Chinese Forget-me-not</td>
</tr>
</tbody>
</table>
Tomorrow: The Edible Academy

- Homework - Read EcoPhobia
- We will spend a lot of the day outdoors tomorrow!
- Please:
  - Dress for the weather
  - Wear sturdy walking shoes
  - Wear a hat
  - Bring sunscreen
  - Bring water