



CHICAGO BOTANIC GARDEN

JOSEPH REGENSTEIN, JR. SCHOOL

Ecosystems and Adaptations

Garden Pre-Trip Activities

To prepare your students for the investigations they will do on site, we recommend doing these activities prior to your visit.

ABC Bingo

Purpose:

To introduce students to the abiotic, biotic, and cultural components of an ecosystem.

Materials:

- Bingo Boards
- Bingo Numbers
- Bowl or hat (to pull numbers out of)

Note: This activity works best when students are in small groups

Steps:

1. Before beginning the game, discuss the following definitions with the class:
 - Biotic: Living
 - Abiotic: non-living; not man-made
 - Cultural: non-living; man-made-Ask the students how the above factors relate to ecosystems. Discuss examples.
2. Gather students in small groups. Give each group a bingo board. Have students draw/write examples of abiotic, biotic and cultural ecosystem components in the proper spaces on their Bingo Boards.
3. Play Bingo! First group to get Bingo with 100% accurate answers wins.

Biome in a Bag

Purpose:

Students will learn how different abiotic factors affect plant life in desert and tropical biomes.

Materials:

- (2) 2 liter bottles cut in half
- (2) 1 gallon Ziploc bags
- Pebbles
- Potting soil
- Seeds that quickly germinate (grasses, beans)

Steps:

*Note: This activity spans over multiple days.

1. Pour half an inch of pebbles into the bottom half of each 2 liter
2. Add potting soil on top of the pebbles. The container should have twice as much soil as it does pebbles.
3. Make a small circular trench in the middle of the soil (Depth: of trench = from the tip of your finger to the end of your finger nail).
4. Sprinkle a few seeds (of the same variety) into each containers' trench. Cover the seeds lightly with soil.
5. In one container, water the soil until you see water collect at the bottom of the pebbles. Label a Ziploc bag "Rainforest" and place the container inside.
6. Water the soil very lightly in the other container. Place in a Ziploc labeled "Desert". (No need to rewater either container as the sealed bag will help your biome create a mini water cycle).
7. Place the "Desert" container in a very sunny place and the "Rainforest" container in a place that receives little light..
8. Check back on your biomes in 3-4 days. Discuss similarities and differences between the two containers.

Source:

PBS Kids—Zoom Programming

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ABC BINGO

	1	2	3	4	5
B	CULTURAL B1	BIOTIC B2	ABIOTIC B3	CULTURAL B4	ABIOTIC B5
I	BIOTIC I1	CULTURAL I2	BIOTIC I3	ABIOTIC I4	CULTURAL I5
N	ABIOTIC N1	CULTURAL N2	BIOTIC N3	CULTURAL N4	ABIOTIC N5
G	BIOTIC G1	ABIOTIC G2	CULTURAL G3	BIOTIC G4	ABIOTIC G5
O	CULTURAL O1	BIOTIC O2	ABIOTIC O3	CULTURAL O4	BIOTIC O5



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