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TITLE: Deep Time Seed Futures - Time Capsule Activity

AGES: 8 to Adult (you may decide to adapt the conversation to suit older or younger participants)

PARTICIPANTS: Maximum 8

IDEAL SITE: A long term site that you envision the community having access to, such as a schoolyard or park. Near an area with weeds growing.

MATERIALS:

- Large seed samples: Pine cones, milkweed pods, acorns, etc.
- small glass jars (caper jars are perfect) – one per participant
- pens, pencils
- strips of paper
- auger / soil drill (optional)
- shovels
- bowls or paper plates
- small squares of cheesecloth, larger than opening of the jars
- rubber bands
- large rock or marker

RESOURCE LIST:

- ["The 120 Year Period for Dr. Beal's Seed Viability Experiment" by Frank W. Telewski and Jan A. D. Zeevaart](#)
- [Judean Date Palm Methusela, Atlas Obscura, by Aaron Netsky](#)
- [Wild Urban Plants of the Northeast. A Field Guide. By Peter Del Tredici](#) (or another guide specific to your region)

LEARNING OBJECTIVES:

- Learn how to identify the seeds on a plant
- Learn how to tell if the seeds are ready to leave their parent plants
- Envision the future 120 years from now, discussing hopes and challenges
- Explore the life of the soil by burying a time capsule

INSTRUCTIONS:

- Give each participant a seed collection kit including glass jar with cheese cloth cover, slip(s) of paper, paper plate or bowl.
- Pass around large seed samples and discuss how seeds function to make new plants.



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- Discuss how long seeds can last before they grow. Introduce Judean date palm seed growth after 2,000 years.
- Introduce Dr. Beal experiment. Have students read the article, or else explain it to them.
- Explore your site, looking for weeds. Do you see any plants with ripe seeds?
- Explain how to determine whether seeds are ready to remove from a plant:
 - They fall off easily when you touch or massage them
 - They might be a dark or light brown in color as they dry out
 - They often occur when flower heads dry up (for example, a dandelion)
- Collect as many kinds of seeds as you can. Each participant can collect seeds in their own glass jar.
- Dig a hole – 3 feet deep is ideal, but shallower is OK. This can be done ahead of time if you prefer. Set aside some of the soil from the deepest part of the hole.
- Bring seeds and reserved soil inside. Spread the seeds out in the bowls or plates.
- Have a conversation to visualize what the future holds 120 years from now. Discuss:
 - What movies, books, stories, poems can you think of that imagine the future? What is that future like?
 - What do you think the future of your town or city might be like?
 - What might technology be like in the future? (cars, smart phones, the internet)
 - What hopes do you have for the future?
 - What challenges will the people of the future face?
- Ask participants to write a message to people of the future, or their own hopes or fears for the future, on a slip of paper, and place it in their jar.
- Mix the soil from the deepest point in the hole into the seeds. This soil has fewer bacteria and living organisms, so is more inert and ideal for long term storage.
- Pack the soil with seeds loosely into the jars, around the written message.
- Cover the mouth of the jars with cheesecloth and secure with a rubber band.
- Return to the site and do the [Seed Dormancy Exercise](#).
- Place the jars in the bottom of the hole, opening side down, at a diagonal angle, if possible.
- Fill the hole in with dirt. Place a large rock, marker, or plaque on top of the hole
- Optional: Return in regular intervals of 20 years or more, to dig up the jars and try to sprout a portion of the seeds! Note which seeds sprout, then rebury the jars.

FEEDBACK: Please email us with notes, comments and suggestions, or just to say hi at nextepochseedlibrary@gmail.com. We'd love to hear from you!