

Tree-a-Thon

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Afterschool Curriculum:

Thank you so much for your interest in this after school content that teaches why trees are so important, how to plant a seedling, and how to care for newly planted trees.

This content is provided to you free of charge. If you could please complete a short 5-question survey after you use the content, it will help us to improve the quality of the lessons.

Thank you, again! All participants who reply to the survey will be entered into a prize drawing! [See Program Survey](#)



Overview

A three-hour tree planting lesson in three parts (developed by the Winter 2020 Design Studio Team)

Notes to the Teacher/Site Director:

- This unit is a three-hour lesson in three-parts. It might be helpful to center this around a family night. This could deepen the learning for youngsters as a caring adult would be “on the team.” Also, this would help with the last hour’s message – lasting care for your tree. If adults cannot be present, maybe reach out to additional HS students to volunteer time to help.
- Lesson 2, tree planting, requires that the tree roots be soaked in water for 3-6 hours before planting.
- Please capture some video of the lessons, especially the planting part. Once submitted, we will have a compilation video made and share it back with you for your use.
- Images are included that relate to each lesson on the back page of each lesson plan.

This three-hour Tree-A-Thon content is set up in 3, one-hour segments. Each one starts with a “setting the stage” question for whole group input followed by a short (4 minute) video that further sets the stage. Then, kids will work as a team to complete a project related to the topic at hand. Reflections follow each project. Those can be oral, written, or podcasty or some combination of all the above.

1. Big Idea: Why Trees?

- What are trees and why are they important to me?

2. Big Idea: Planting a Tree

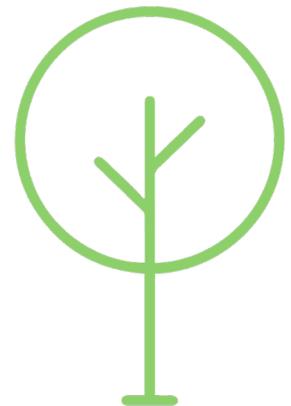
- What are the important steps in planting a tree?

3. Big Idea: Caring for Trees

- How do I care for a newly planted tree?

4. Vocabulary Flash Cards:

- What are trees and why are they important to me?



Standards

A three-hour tree planting lesson developed by the Winter 2020 Design Studio Team

State, Local and National Standards:

In the footer of each lesson, you will find a reference to all standards addressed by each lesson.

Nebraska Academic Standards

- SC2.3.1.B Identify the basic needs of living things (food, water, air, space, shelter)
- SC2.3.2.B Describe how living things change as they grow
- SC5.3.1.B Identify how parts of plants and animals function to meet basic needs (e.g., leg of an insect helps an insect move, root of a plant helps the plant obtain water)

College and Career Ready Standards

- SC.2.7.2.A Plan and conduct an investigation to determine if plants need sunlight and water to grow.

National Standards Benchmarks for Science Literacy

- 5C/P2 Most living things need water, food, and air.
- 5E/P1 Plants and animals both need to take in water, and animals need to take in food. In addition, plants need light.
- 8A/P1BC To grow well, plants need enough warmth, light, and water. Crops must be protected from weeds and pests.
- 5C/E1 Some living things consist of a single cell. Like familiar organisms, they need food, water, and air; a way to dispose of waste; and an environment they can live in.
- 5D/E3B Many plants depend on animals for carrying their pollen to other plants or for dispersing their seeds.
- 5E/E2 Some source of “fuel” is needed for all organisms to stay alive and grow.

Next Generation Science Standards Grade Level Disciplinary Core Ideas

- 2-LS2.A.3 Plants depend on water and light to grow.



L1 Why Trees?

Part 1 of a three-hour tree planting lesson

Big Questions: What are trees and why are they important to me? Write student responses on poster paper.

Set the Stage: [Children Can Make a World of Difference](#) video: 4 minutes, 27 seconds

Terms: See Flash Cards provided. Add terms to class mural.



Activity:

Procedure: After the intro video – Engage - Follow-up. Were we correct with our guesses?

Pre-Activity: Think, Pair & Share

Talk with a partner and discuss the following questions

- What do trees look like?
- Where do trees grow?
- What is the coolest, biggest, most interesting tree you have seen and where did you see it?

Main Activity

- Use art supplies and materials to draw your idea of a tree. Be creative.
- Add the drawing to the class mural.
- Review the flash cards and their meaning. Add them to the mural too!

Set up hour 2: PBS Learning Media, Video [Arbor Day](#), 1 minute, 45 seconds



Reflection:

- To communicate their observation: "I saw..."
- To reflect on their predictions: "I thought...but then..."
- To demonstrate science community skills: "I liked..." or "I respected..."
- To make a conclusion: "If we care more about trees... we should..."
These could be oral or podcasty.

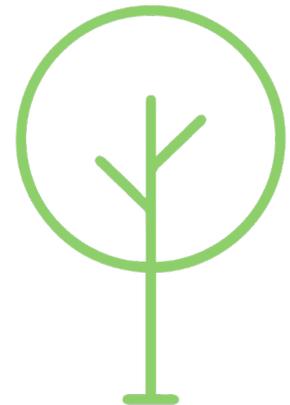
Enrichment:

Be thinking about what we learned and how we can expand into our communities.



Materials:

- Computer
- Internet connection
- Projector
- Board/white board, or poster paper
- Brown roll paper, backdrop of mural
- Art supplies



Standards:

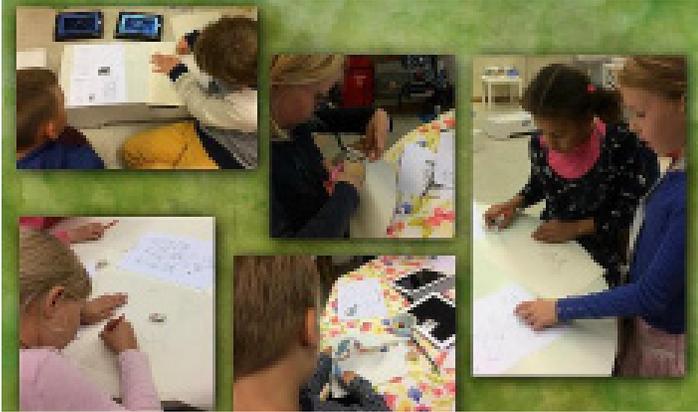
Standards addressed by this activity - BSB – The Do Place: Nebraska: SC3.3.1.B, SC2.3.2.B, SC5.3.1.B; College & Career Ready: SC2.7.2.A; National: 5C/P2, 5E/P1, 8A/P1BC, 5C/E1, 5D/E3B, 5E/E2; and NGSS: 2-LS2.A.3



Beyond School Bells
nebraskachildren

L1: Images: Why Trees?

Developed by the Winter 2020 Design Studio Team



L1: Standards

In the footer of each lesson you will find a reference to National, State, and Local Standards addressed by each lesson.

L2 Planting a Tree

Part 2 of a three-hour tree planting lesson

Big Questions: What are the important steps in planting a tree? Write student responses on poster paper.

Set the Stage: [How to Plant Bare Root Trees](#) video: 1 minute, 13 seconds



Activity:

Procedure: Planting

Pre-Activity

- Flag out planting locations
- Soak trees in water for 3 to 6 hours before planting

Main Activity

- Dig the hole
- Place the tree in the hole, first root at soil line
- Backfill the soil around the tree and lightly compress
- Mulch the area in the shape of a dog dish, keeping mulch away from the trunk
- Place a cage around the tree
- Water the tree
- Repeat for each bare root tree that you have
- Take images/videos and share them
- Add images to the mural!



Reflection:

- To communicate their observation: "I saw..."
- To reflect on their predictions: "I thought...but then..."
- To demonstrate science community skills: "I liked..." or "I respected..."
- To make a conclusion: "If we care more about trees... we should..."
These could be oral or podcasty.

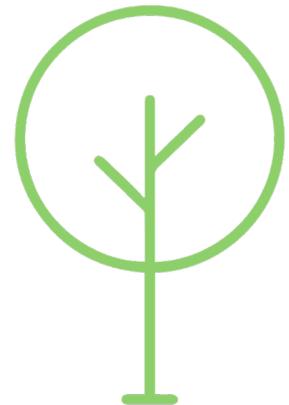
Enrichment:

[Take the Plum Tree Challenge](#)



Materials:

- Shovels
- Scissors
- Mulch
- Tree cage or Chicken Wire
- Water
- 5-gallon bucket
- Flagging material
- Digital camera



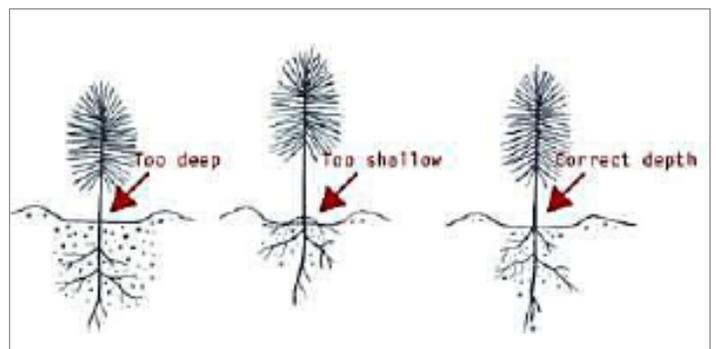
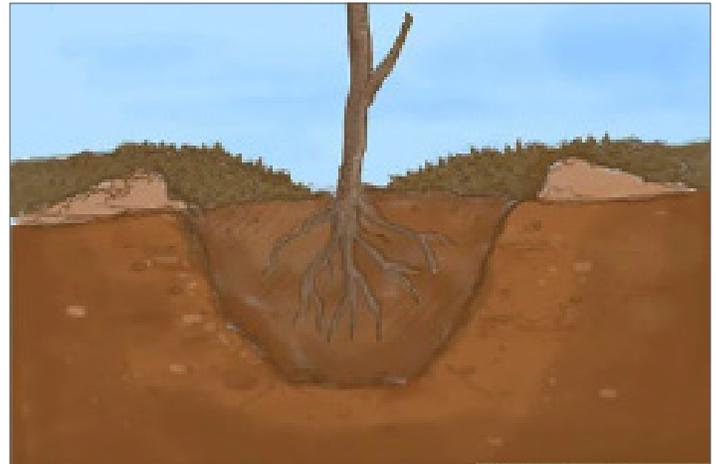
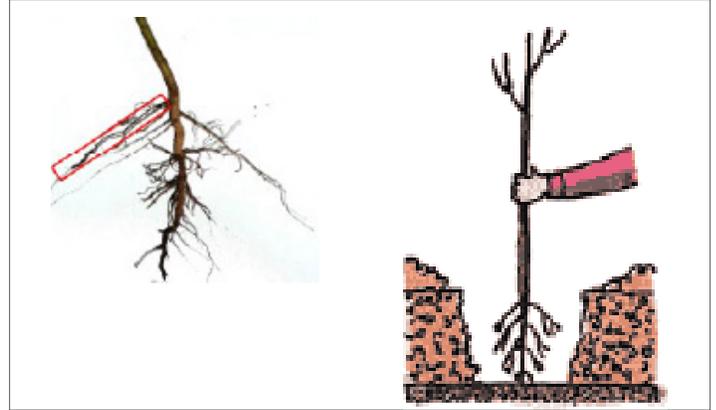
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L2: Images: Planting a Tree

Developed by the Winter 2020 Design Studio Team



L2: Standards

In the footer of each lesson you will find a reference to National, State, and Local Standards addressed by each lesson.

L3 Caring for Trees

Part 3 of a three-hour tree planting lesson

Big Questions: What are the important steps in caring for our newly planted tree? Write student responses on poster paper.

Set the Stage: [ABC's of Tree Pruning](#) video: 3 minutes, 19 seconds



Activity:

Pre-Activity: Ask...

Why do you think we should prune trees?

Main Activity

Students will trace or draw their tree with a trunk and branches. Prune off a few of the tree's unwanted branches to simulate proper pruning method.

- Draw or trace the outline of the tree on cardboard.
- Cut out the tree shape, and a small square of cardboard.
- Make a small slit at the trunk base and a slit half-way through the square and connect them.
- Next, prune the branches. Cut the cardboard about a 1/3 of the way through the branch but stay just outside the thick part (branch bark collar).
- Make your second cut above the cut you just made all the way through. Cut the branch off.
- The final cut is a clean-up. If there is anything left of the thin part of the branch, clean off.
- Decorate the tree with colored paper for leaves (optional).

[Click here](#) for an online annual tree care calendar. Plan follow-up activities.



Materials:

- Cardboard
- Poster paper
- Markers
- Scissors
- Colored paper

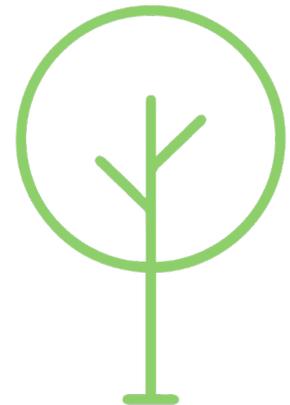


Reflection:

- To communicate their observation: "I saw..."
 - To reflect on their predictions: "I thought...but then..."
 - To demonstrate science community skills: "I liked..." or "I respected..."
 - To make a conclusion: "If we care more about trees... we should..."
- These could be oral or podcasty.

Enrichment:

Propose taking your tree knowledge on the road! Make time to share what you have learned with your site director and grounds keeper. Maybe you can plant and maintain trees in other locations!



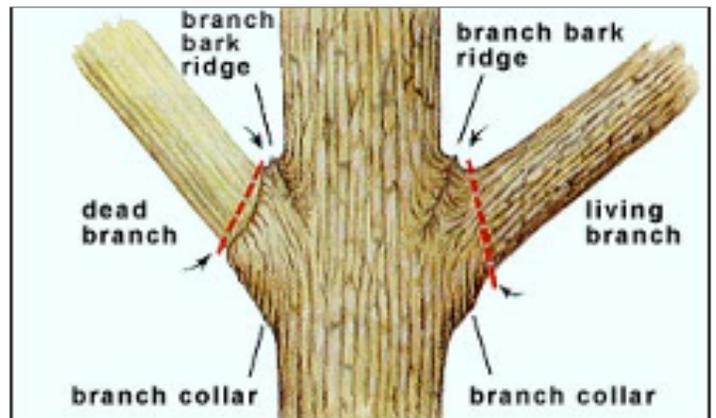
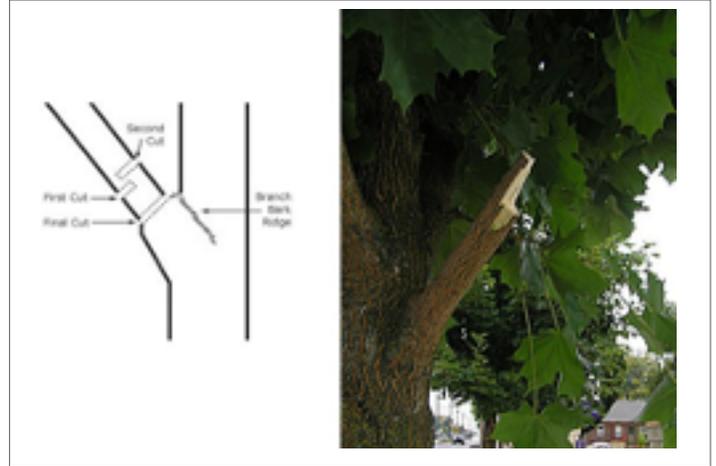
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L3: Images: Caring for Trees

Developed by the Winter 2020 Design Studio Team



L3: Standards

In the footer of each lesson you will find a reference to National, State, and Local Standards addressed by each lesson.

Bare root tree

A tree not grown in a pot and will not have any soil around their roots.

Arborist

A professional in the practice of arboriculture, which is the cultivation, management, and study of individual trees, shrubs, vines, and other perennial woody plants in dendrology and horticulture.

Tree trunk

Is the main stem and main wooden axis of a tree.

Tree root ball

Is the main mass of roots at the base of a plant such as a shrub or tree.

Root Flare

Is where the tree trunk
and the roots meet

Grade

Is where the existing ground is.
We plant a tree below the grade.

Biodiversity

Is all the different plants and animals
living near or in a tree.

Contributing

Is helping or giving to something.
We are contributing to cleaner air
when we plant trees.