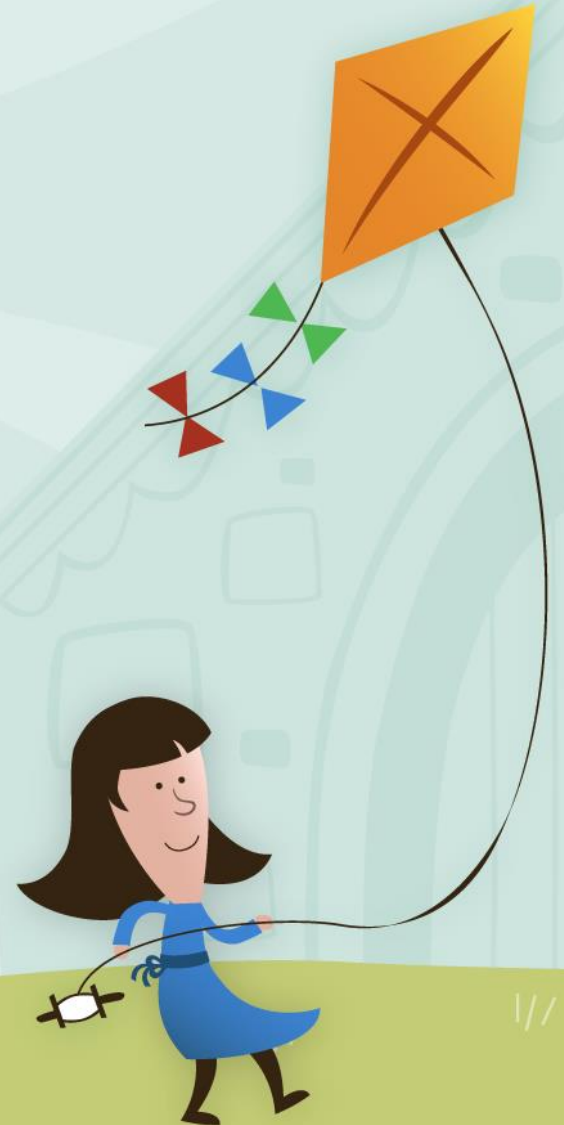
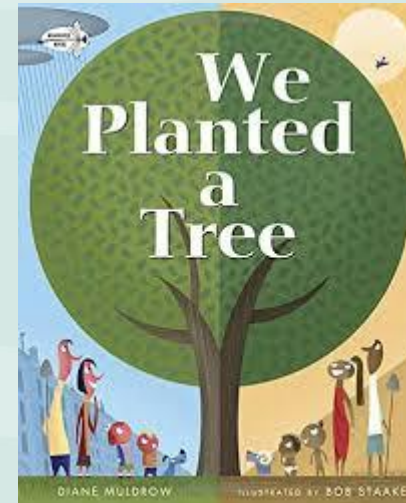
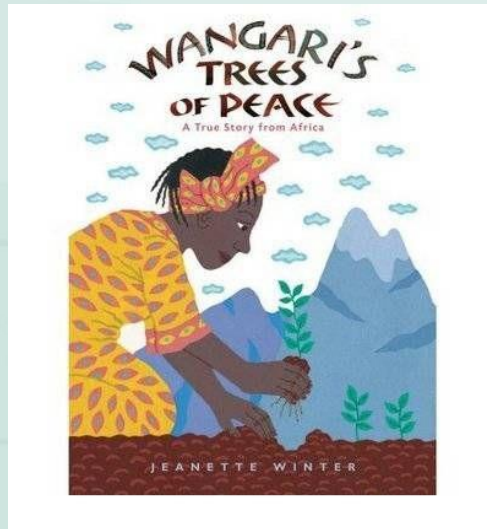


Plant a Tree

PP STEM K-2



Lesson Objectives

- Science and Engineering Practices
 - Asking Questions and Defining Problems
 - Obtaining, Evaluating, and Communicating Information
- Disciplinary Core Ideas
 - ESS3.C Human Impacts on Earth Systems
 - ETS1.A Defining and Delimiting Engineering Problems
 - ETS2.B Influence of Engineering, Technology, and Science on Society and the Natural World
- Crosscutting Concepts
 - Systems and Systems Models

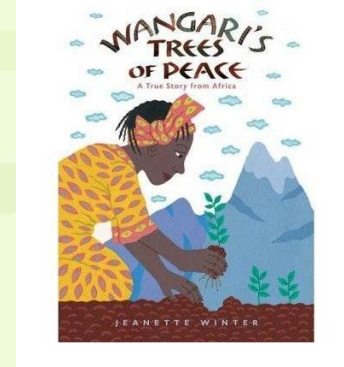


CCSS Connections

- Reading: Literature
 - Key Ideas and Details K-2.1
- Reading: Informational Text
 - Integration of Knowledge and Ideas K-2.8
- Writing
 - Text Types and Purposes K-2.3
- Mathematics
 - Measurement and Data K.MD.1



Engage: *Wangari's Trees of Peace*

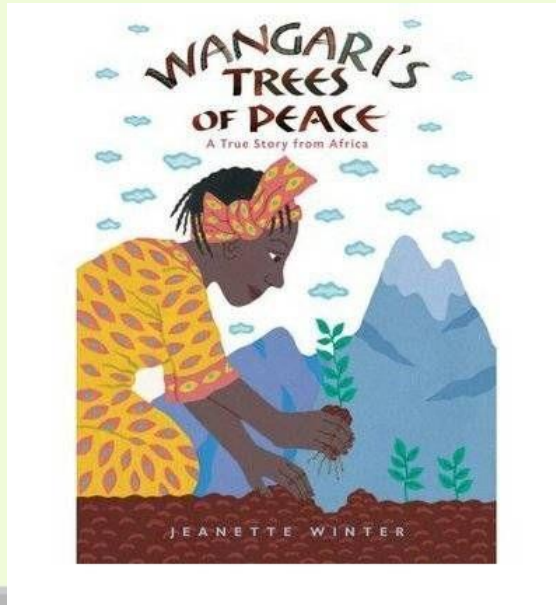


- From looking at the cover, what do you think this book might be about?
- Where is Africa? INSERT MAP HERE
- Page 21: Why would Wangari say that a park is needed more than an office tower? Why would a park be more needed than an office tower?
- End of page 29: Close your eyes and visualize what the millions of trees Wangari planted would look like from the top of Mount Kenya. Share with a friend.
- Pages 30-31: How did your mental picture compare with the illustrator's interpretation of the scene?
- How do you think Wangari felt when she came home to Kenya to find the trees gone? What makes you think so?
- Why were people cutting the trees down?
- What are other reasons people cut down trees?



Engage: *Wangari's Trees*

- What did Wangari do right away to help solve the problem?
- On page 25, the book says there were “30 million trees where there were none.” Did Wangari plant all 30 million trees?



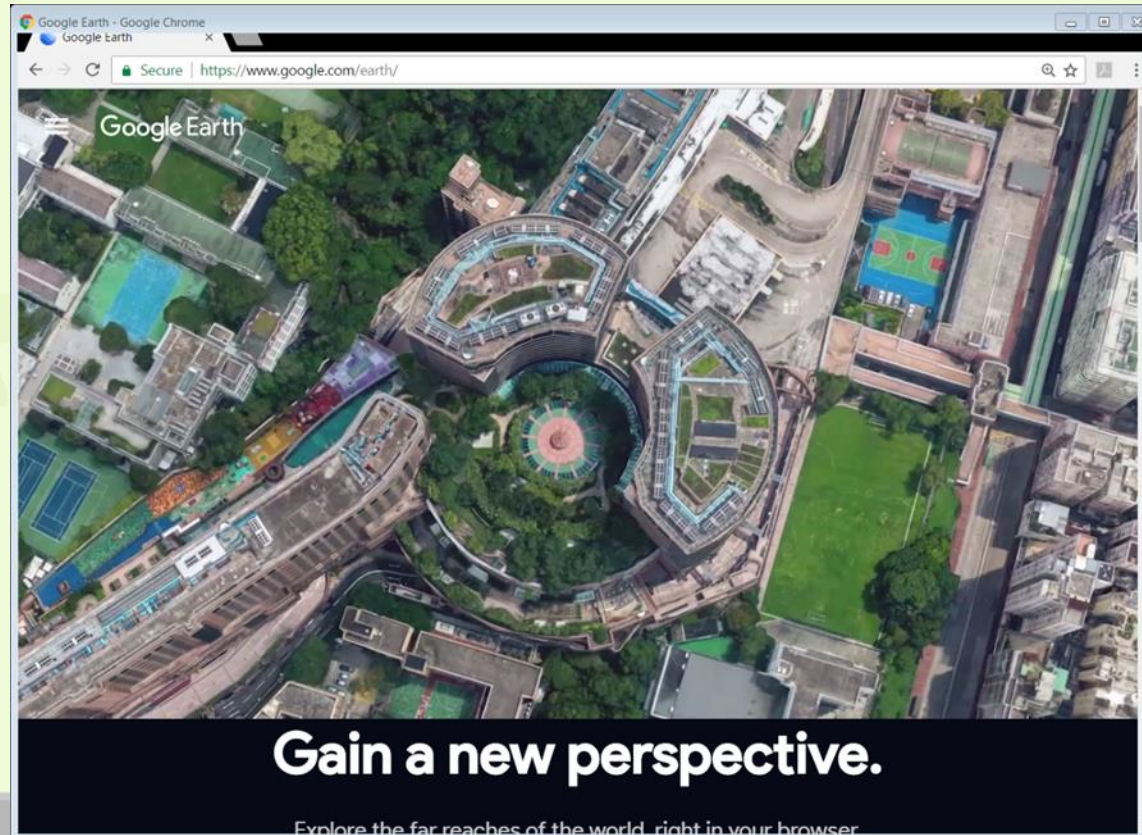
Engage: Good Earth Field Trip to Mount Kenya

- “And if you were to climb to the very top of Mount Kenya today, you would see the millions of trees growing below you, and the green Wangari brought back to Africa.” (pages 30-31)
- Would you like to stand at the very top of Mount Kenya to see the trees that Wangari planted?



Engage: Good Earth Field Trip to Mount Kenya

- GOOGLE EARTH
 - <https://www.google.com/earth/>



Explore: Observe a Tree

- Take your pencil, clipboard, and Observe a Tree sheet outside to observe a tree. Sit quietly in the shade and draw the general shape of the tree on your student page.
- How could we find out how big around the tree trunk is?
- Use the tape measure to find out, then record the circumference on your student page.
- Look at this leaf. What do you notice about the shape of the leaf? Draw it on your sheet.
- Why do you think this tree is important? Can you turn and tell a partner a reason we haven't yet mentioned?



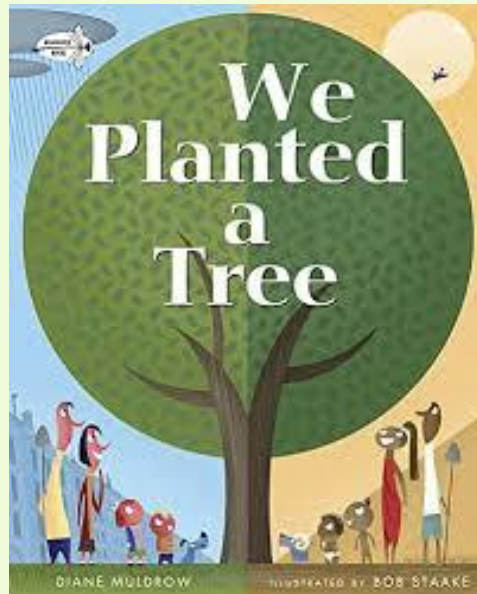
Engage: Observe a Tree

- Why are trees important?
- What things do people get from trees?
- Can you think of any other living things that benefit from trees?
- What questions do you have about trees?



Explain: *We Planted a Tree*

“When we plant trees, we plant the seeds of peace and seeds of hope.”
Wangari Maathai



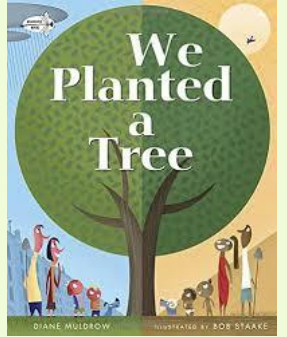
Explain: *We Planted a Tree*

“We planted a tree, and that one tree made the world better.”

- What evidence does the author give that trees make the world better?

Natural Resources Ecosystem

- How could removing trees harm other living things in an ecosystem?
- What are some things that we can do to reduce the harmful effects of cutting down trees?



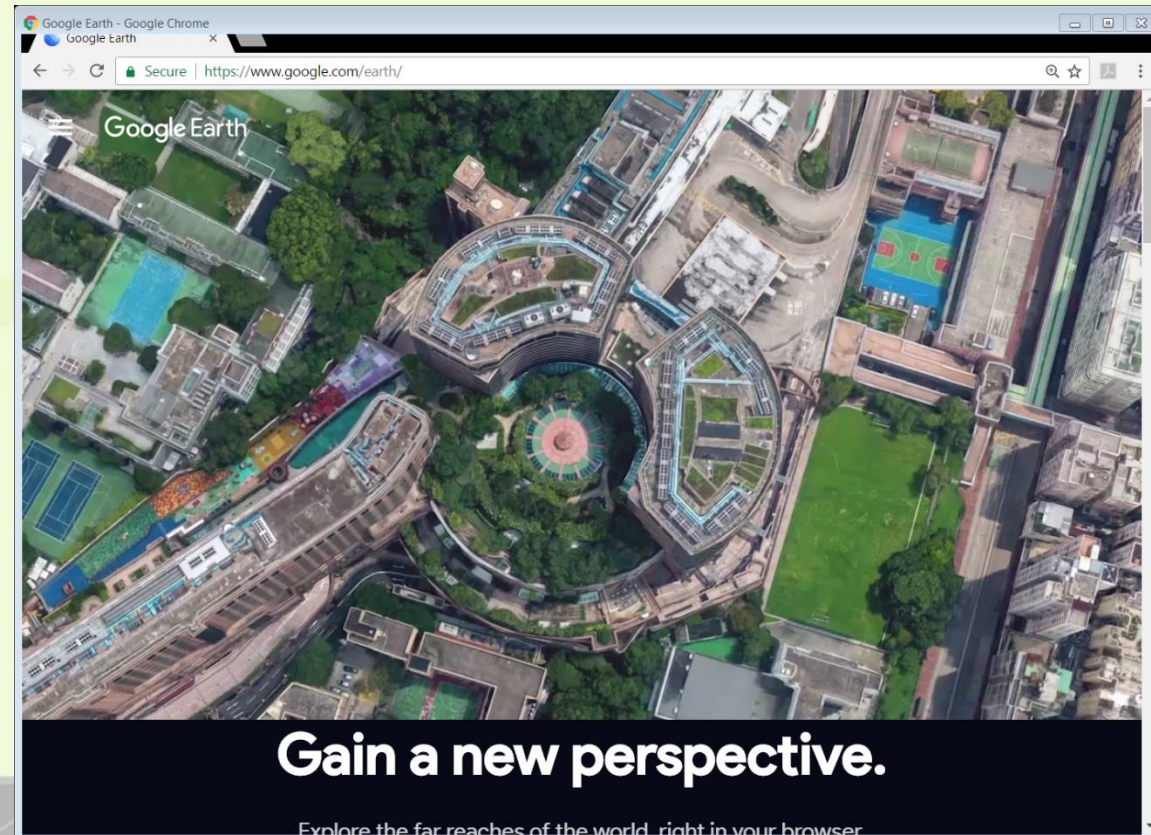
Elaborate: “*Plant for the Planet*” Video

- Wangari Maathai once said, “It’s the little things that citizens do. That’s what will make the difference. My little thing is planting trees.”
 - *Plant for the Planet* Video
 - <https://tn.pbslearningmedia.org/resource/yvcc-sci-plantplanet/plant-for-the-planet/#.WVhGBVMrKpo>
- Would you like to plant a tree in our schoolyard or community so that you can make a difference like Wangari and Felix did?
- Where do you think would be a good place to plant a tree?



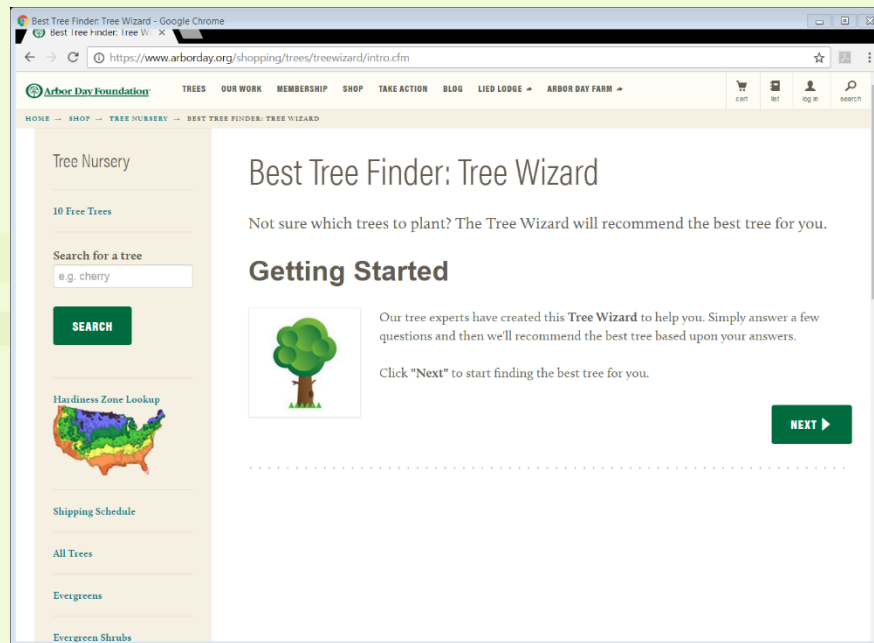
Elaborate: Research a Planting Location and Type of Tree

- GOOGLE EARTH
 - <https://www.google.com/earth/>



Elaborate: Research a Planting Location and Type of Tree

- Arbor Day's Best Tree Finder
- <https://www.arborday.org/shopping/trees/treewizard/intro.cfm>



Elaborate: Plant a Tree

Wangari said, “Anybody can dig a hole and plant a tree. But make sure it survives. You have to nurture it, you have to water it, you have to keep at it until it becomes rooted so it can take care of itself.”

- Brainstorm ways that you will nurture your newly planted tree.



Evaluate: We Planted a Tree

- Using your We Planted a Tree sheet, write or draw the steps you followed the day you planted the tree.
- On the last page, complete the sentence: “We planted a tree, and that one tree makes the world better because...”



Plant a Tree

- What did you learn today?
- What was your favorite part of the lesson?
- See your STEM at Home sheet for another experiment you can do at home.



Source

- Picture Perfect STEM K-2. (2017). National Science Teachers Association.

