

Name:

Date:



OUR FOOTPRINT, OUR FORESTS, OUR FUTURE

Climate Change: Earth's Giant Game of Tetris



1. Name four ways that carbon dioxide **enters** the earth's atmosphere, and three ways it **leaves** the atmosphere.

ENTERS:

LEAVES:

2. Explain the **greenhouse effect** and how it relates to the carbon cycle.

3. What are the three types of fossil fuels excavated from the earth? How do they affect the carbon cycle?

4. Summarize they video by explaining how climate change affects Earth's game of "Tetris."

Global Forest Change: Interactive Map



Site: <http://earthenginepartners.appspot.com/science-2013-global-forest>

1. Clearly label the seven continents on the map below.

2. Select one of the example locations provided on the drop-down menu, read the summary of the occurrence, and outline it on the map below. Then, explain what you see: -----

3. Select a region with high forest loss and research any statistics/information you can find on agricultural exports. Summarize your findings: -----



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Plant for the Planet

Directions: After watching "Plant for the Planet" and learning about Felix's story, answer the questions below.

1. While doing research for his school project, what did Felix learn about Wangari Maathai?
2. What was the first tree that Felix planted?
3. How many kilos of CO₂ does each trip absorb every year?
4. According to Felix, every person in the world is allowed to pollute _____ tons of carbon. Today, the average American pollutes _____ tons each year, Europeans _____, and Africans _____.
5. Felix has a goal to plant how many trees in each country?
6. Why does Felix believe it is important to plant so many trees?

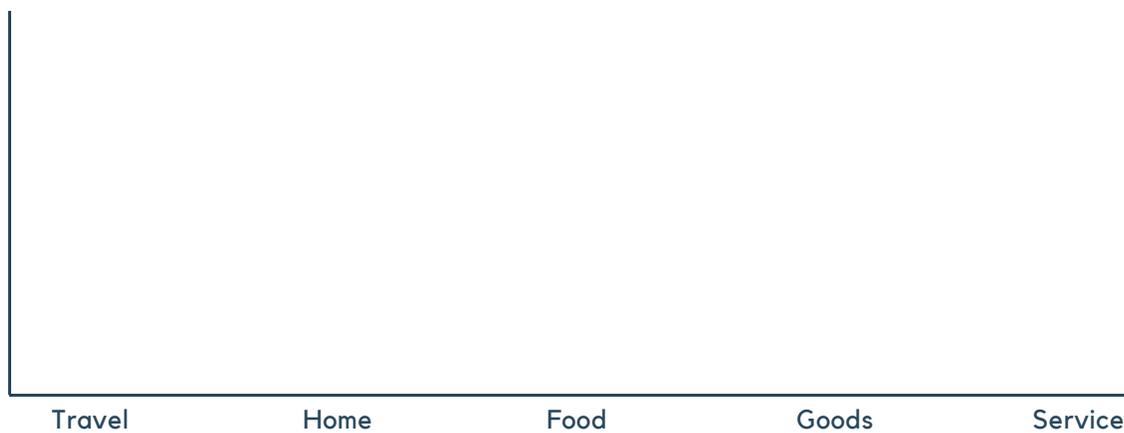


Carbon Footprint Calculator

Directions: With the help of your parents, complete the carbon footprint survey questions to the best of your knowledge. Then, record your findings below.

Site: <https://www.nature.org/en-us/get-involved/how-to-help/consider-your-impact/carbon-calculator/>

1. Approximately how many tons of CO₂ do you emit each year? _____
2. What percent is this compared to the average? _____
3. Complete the bar graph below to record how your household compares to others:



4. After completing this exercise, what did you learn? What are you still wondering?

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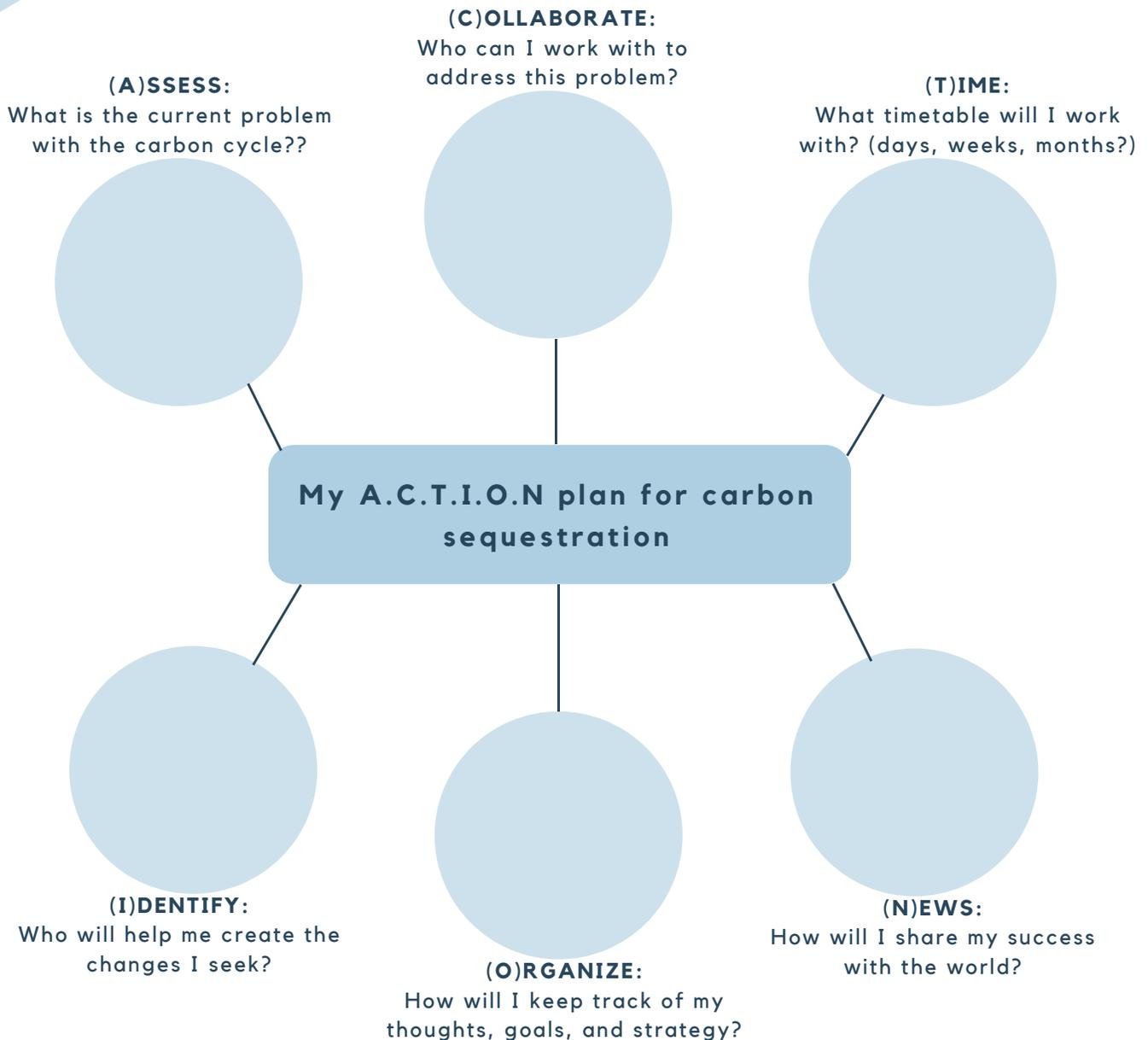


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Take A.C.T.I.O.N

Directions: At the bottom of your carbon footprint data, click on "Take Action" and explore ways to reduce your carbon footprint. Then, fill in the graphic organizer below.



PUTTING IT ALL TOGETHER: After viewing the videos, exploring the deforestation map, and calculating your carbon footprint, explain how your A.C.T.I.O.N plan will empower you to help create a greener, cleaner world.