

OUR RAINFORESTS AND DEFORESTATION (MIDDLE SCHOOL PARTNERSHIP AND OLDER ZAP)

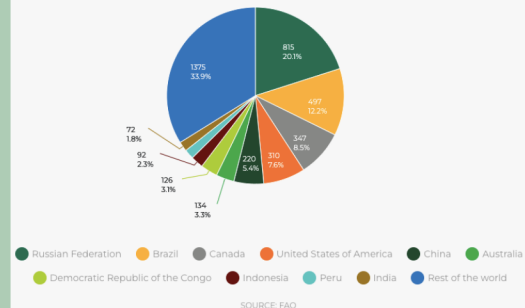
CONNECTIONS

- Civics
- Nebraska Plants and Animals
- Computer Science



GRAPH EXAMPLE

Global distribution of forests showing the ten countries with the largest forest area, 2020 (million hectares and % of world's forest)



IEP ACCOMODATIONS

- Graphs
- Kinetic: Hands-on game
- Auditory: Text-to-Speech

ELL ACCOMODATIONS

- Encourage vocabulary in home languages
- Encourage note taking in home language
- Use visuals to create meaningful language connections

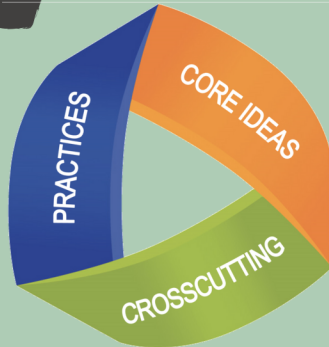
HIGHER LEVEL THINKING QUESTIONS

- Does the data show a correlation between deforestation and biodiversity?
- What does the data show us about deforestation trends?
- Are animals directly affected by deforestation?



SC.7.8.4.C

Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.



Science and Engineering Practices:

Analyzing and Interpreting Data

Disciplinary Core Ideas:

LS2: Ecosystems: Interactions, Energy, and Dynamics

Crosscutting Concepts:

Stability and Change

Engage: (15 minutes)

Using the board game KerPlunk, show the relationship between trees (sticks) and the animals that live in forested environments (animals). Students will observe when the marbles fall and whether the marbles do better with more or less sticks.

(5 minutes)

Collaboratively create a KWL chart drawing on students' prior knowledge and past learning.

(10 minutes)

Explore: (20 minutes)

Have students look at data and research on the [Food and Agriculture Organization of the United Nations](#) website. Have a guided conversation about what the data means in context. Compare the data with the [Google Earth Engine Timelapse](#).

Explain: (5 minutes)

Discuss higher level thinking questions and brainstorm about why deforestation and biodiversity are related. Analyze whether these brainstormed hypotheses are reflected in the data and graphs.

Elaborate: (10 minutes)

Analyze and interpret graphs about deforestation and biodiversity relationships using graphs from [Our World in Data](#) website.

Evaluate: (10 minutes)

Start to create graphs using current data and future projections. Identify trends.

