

Where Tigers Tread: An Earth Science Look at Habitats

Introduction (10 mins):

You're interested in tiger anatomy, which is fascinating! But where do these amazing animals live? Their bodies are adapted to specific places on Earth. Today, we'll put on our Earth Science hats to investigate the *homes* of tigers. We'll explore the different environments – the climates, the land, the plants – that make up tiger territory. Think of it like being a detective, using clues from Earth Science to understand the world of tigers.

Activity 1: Mapping the Tiger's World (15 mins):

Let's find the tigers! Using the world map and the map of tiger ranges:

1. Locate the continent(s) where tigers live naturally (Asia).
2. Identify specific countries that have (or had) wild tiger populations.
3. Compare the historical range map to the current range map. What do you notice? Are the areas larger or smaller?
4. Look at the types of land shown on the maps where tigers live. Do you see mountains? Forests? Swampy areas? Near coastlines? Note down the different types of terrain you observe.

Activity 2: Habitat Deep Dive (25 mins):

Now let's zoom in. Choose two different tiger habitats to investigate using the fact sheets or online resources (e.g., the cold forests of Siberia vs. the mangrove swamps of the Sundarbans, or the tropical rainforests of India).

For each habitat, find out:

- **Climate:** Is it generally hot or cold? Does it get a lot of rain, or is it dry? Are there distinct seasons?
- **Terrain/Geology:** Is it flat, hilly, or mountainous? What kind of ground is common (rocky, sandy, muddy)? Are there major rivers or lakes?
- **Vegetation:** What kinds of plants grow there (e.g., dense trees, tall grasses, special water-loving plants)?
- **Connection:** How might these Earth Science features help a tiger survive? (Think about shelter from heat/cold, places to hide, access to water, areas where their prey might live).

Write down your findings for each habitat.

Activity 3: Biome Builder (Optional Extension - 30 mins):

Choose one of the habitats you researched. Using a shoebox and the craft materials, create a mini-model (diorama) of that environment. Focus on showing the key Earth Science features: make hills or flat land with clay or paper, add 'water' using blue paper or paint, use twigs for trees or sand/small rocks for different ground types. This helps visualize the physical environment.

Wrap-up & Assessment (10 mins):

Let's discuss what we learned:

- What are some major differences in the Earth Science features of the tiger habitats we looked at?
- How does the climate of a place affect whether tigers can live there?
- Why is understanding the terrain (mountains, swamps, forests) important when studying where tigers live?
- Thinking back to the map showing shrinking tiger ranges, what Earth Science related reasons might contribute to this (e.g., deforestation, changes in water availability, climate change impacts)?

To show what you learned, can you name three specific Earth Science characteristics (like 'heavy rainfall', 'mountainous terrain', or 'dense forest cover') that are important for a tiger habitat?