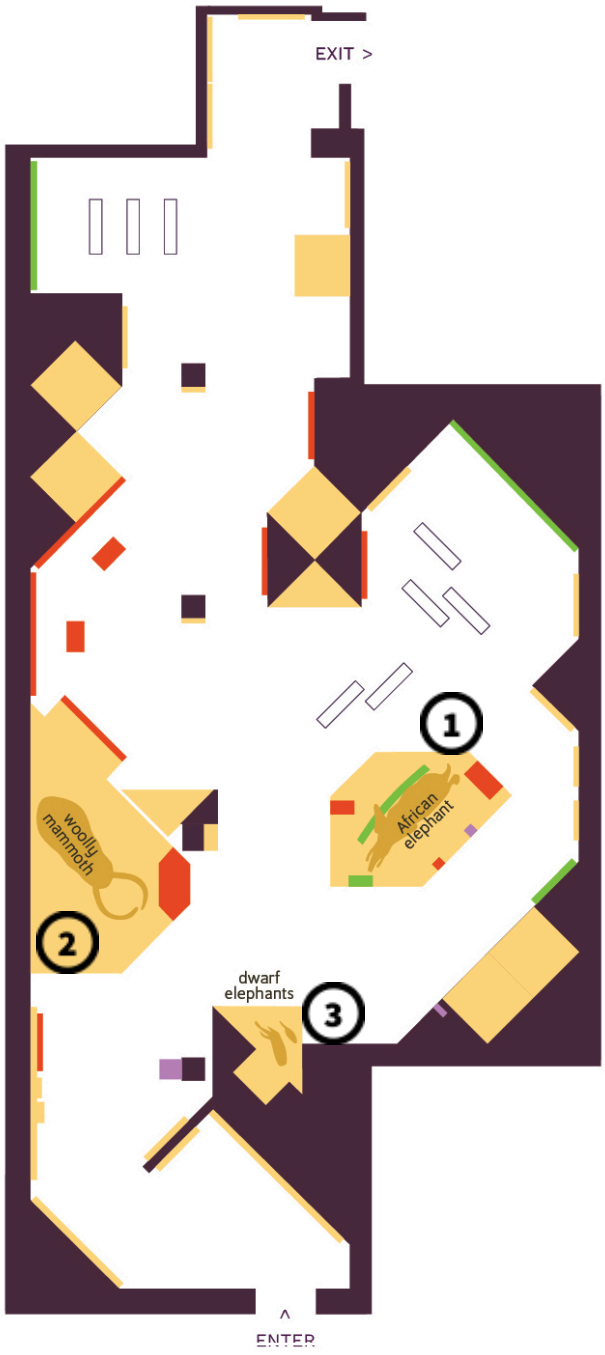
Student Worksheets

You will visit life-size models and fossils in the exhibition to observe elephants and their relatives and explore the environments in which they lived. Using your observations and the supporting text, describe how the animals' physical traits are adapted to the conditions of their habitats.



1. African Savanna Elephant

2. Woolly Mammoth

3. Dwarf Elephant and Straight-Tusked Elephant

STOP 1 African Savanna Elephant — ALIVE TODAY

Draw how tall you are relative to this animal.

Observe the large banner on a wall near the model. **Describe** the environmental conditions of this animal's habitat:

Answers may include:

Hills in background

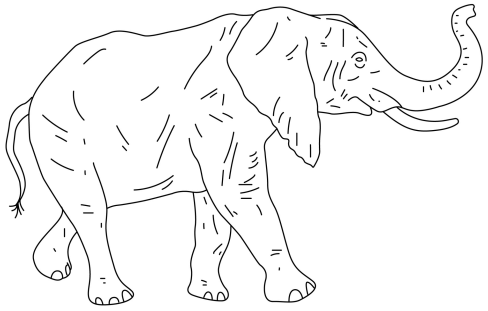
Hot, dry

Grassy, flat plains

Dry shrubs

How are this animal's physical traits (e.g. body size, ears, tusk, trunk, hair) adapted to these conditions? **Note** them on the drawing.

Answers may include: big ears for cooling off; sparse hair for cooling down and sun protection; trunk for drinking and pulling down branches; tusks for digging and defense



STOP 2 Woolly Mammoth — EXTINCT

Draw how tall you are relative to this animal.

Observe the painting behind the model. **Describe** the environmental conditions of this animal's habitat:

Answers may include:

Stream

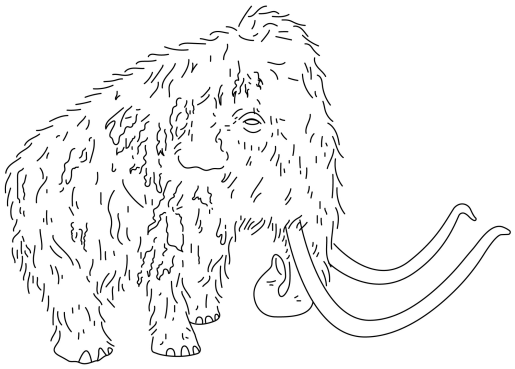
Springtime

Pine trees, flowers

Mountains in background

How are this animal's physical traits (e.g. body size, tusk, trunk, ears, hair) adapted to these conditions? **Note** them on the drawing.

Answers may include: fur for staying warm and camouflage; tusks for scraping bark; trunk for drinking water and pulling down tree branches



BONUS: Explore the nearby tusk interactive to see how scientists determine where one woolly mammoth lived and the conditions of its habitat.

STOP 3 Dwarf Elephant and Straight-Tusked Elephant EXTINCT

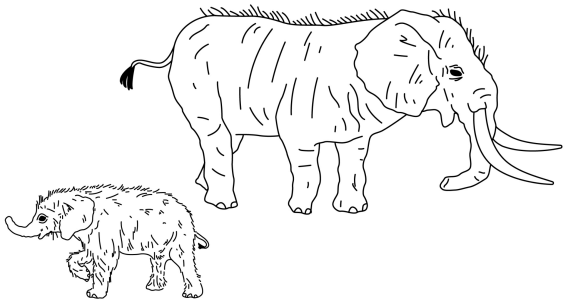
Observe the two life-sized models of dwarf elephants. They show a fully-grown adult and a baby.

Draw how tall you are relative to these animals.

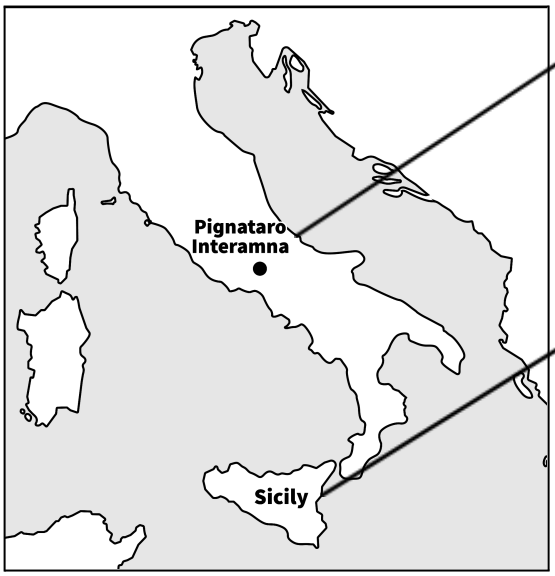
Label and **note** the following on the drawing:

- What stands out to you about their physical traits?
- What questions do you have about these traits?

Answers may include: trunks for drinking and snorkeling while swimming; tusks for digging for food and fighting other males; ears for cooling off; hair for keeping warm at birth and keeping cool as adult, and sun protection



Observe the two fossil skulls next to the models. One skull was found on the mainland of modern day Italy. The other fossil was found on a nearby island. **Read** about the species each fossil represents. **Note** the age of each fossil.



Species represented by fossil found in **Pignataro Interamna**:

Common name: straight-tusked elephant

Scientific name: *Palaeoloxodon antiquus*

Age of the fossil: *800,000 years old*

Species represented by fossil found in **Sicily**:

Common name: dwarf elephant

Scientific name: *Palaeoloxodon falconeri*

Age of the fossil: *450,000 years old*

Compare the fossil skulls and **read** the text below them. Even though these two species are very closely related, why is one species so big and the other so small? **Write** or **draw** about it:

Answers may include:

- *The larger species swam from the mainland to the island.*
- *Islands have limited space, water and food, making it hard for giant animals to survive.*
- *Because of a lack of predators on the island, smaller offspring were more likely to survive and multiply.*
- *In each generation, the smallest offspring did better than their larger sibling, until a lineage of dwarf elephants eventually evolved.*