

## Map it Out!

Scale Model of the Lacerte Family Children's Zoo
You will find a model of the Lacerte Family Children's Zoo area after you enter that area of the Zoo. Get up close and use it to orient yourself. Find where you are standing on the map.
Where on the map is Discovery House in relation to that point?
Where is Discovery House in relation to you?
Once you are comfortable with the map, pick two places on the map. Call these places Point A and Point B. Pretend you were walking from Point A to Point B. Figure out how to walk from Point $A$ to Point $B$.
Use a measuring tool to find the length of the walk between Point $A$ and Point $B$ on the map.

1. Record that distance here:
2. How many of your footsteps do you think the map distance represents? What would you need to do to figure that out? Write out your method and answer below.
3. Challenge yourself! Try to figure out how many steps represent 1 inch on the map. How many feet represent 1 inch on the map?
4. How many steps do you think it would take to walk the same distance for an African elephant or an emperor tamarin? Would it take the same amount of time? Visit Base Camp to learn about the size of an elephant's stride.



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Scale Model of the Lacerte Family Children's Zoo

This activity is intended to help learners understand scale and orient themselves using a map. As learners may not have experience using a map, model the activity as necessary and build in time for discussion and questions.
You will find a model of the Lacerte Family Children's Zoo area after you enter this area of the Zoo. Get up close and use it to orient yourself. Find where you are standing on the map.
Where on the map is Discovery House in relation to that point? Where is Discovery House in relation to you?
Once you are comfortable with the map, pick two places on the map. Call these places Point A and Point B. Pretend you were walking from Point A to Point B. Figure out how to walk from Point $A$ to Point $B$.
Use a measuring tool to find the length of the walk between Point $A$ and Point $B$ on the map.

1. Record that distance here: Measurements will vary
2. How many of your footsteps do you think the map distance represents? What would you need to do to figure that out? Write out your method and answer below.
Guesses for the number of steps will vary. Learners will need to walk the path from Point $A$ to Point $B$ and count the number of steps as they go along.
3. Challenge yourself! Try to figure out how many steps represent 1 inch on the map. How many feet represent 1 inch on the map?

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\frac{\# o f \text { steps }}{\text { Distance from } A \text { to } B}
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- To determine how many feet are represented by 1 inch
- Learners will need to measure their stride/step length
- Multiply the \# steps by step length
- Convert this distance to feet by dividing by 12
- Divide the number of feet by the distance from Point $A$ to Point $B$ to get feet/inch.

4. How many steps do you think it would take to walk the same distance for an African elephant or an emperor tamarin? Would it take the same amount of time?


Answers will vary. Teachers should encourage learners to think through the correlation between stride length, number of steps, and leg length. Stride length of an elephant is greater so it will need to take fewer steps to cover the same amount of distance. However, the emperor tamarin is a very agile animal with a top speed of about 40 $\mathrm{km} / \mathrm{h}$. Elephant speeds are in the $15 \mathrm{~km} / \mathrm{h}$ range so this can be an interesting point of discussion as well. What would this speed be in mph? There are 1.60934 km in 1 mile. HINT: Divide 15 by 1.609.

