Student Activity Book

Measure with Palms (SAB pp. 173–174)
Questions 1–5

1. Measurements will vary.

2. **A–B.** Responses will depend on measurements.

3. **A–B.** Responses will depend on measurements.

4. 3 gorilla palms; gorilla palms are larger so the length will be longer.

5. **A.** crazy; Possible response: I used the gorilla palm and thought about the longest dog tail I have seen. When I got to 4 gorilla palms I stopped, so 20 gorilla palms is crazy.

   B. crazy; Possible response: I counted 15 palms and that was still shorter than me, so it is crazy.

   C. could be; Mark's palms are smaller than his dad's. It will take fewer of the larger unit.

Name _____ Date _____

Measure with Palms

1. Work with a partner. Measure each of the distances listed below using your palm. Then use the gorilla palm. Measure to the nearest whole unit. Use the last space to measure a distance of your choice.

	Distance	My Palms	Gorilla Palms
A.	length of desk		
B.	width of desk		
C.	height of desk		
D.	width of math book		
E.	length of board		
F.			

2. Compare the width of the math book to the height of the desk.

   A. Which is longer? _____

   B. How much longer? Write a number sentence to show how you solved the problem.

   Number sentence _____

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3. Compare the length of the board to the length of the desk.

   A. Which is longer? _____

   B. How much longer? Write a number sentence to show how you solved the problem.

   Number sentence _____

4. Circle the length that is greater.

   3 of my palms   3 gorilla palms

   Show or tell how you decided which was greater.

   _____

   _____

5. Decide if each statement "could be" or is "crazy." Circle one. Be ready to tell how you decided.

   A. Rosa measures her dog's tail. It is 20 gorilla palms long.

   could be   crazy

   B. Linda says her refrigerator is 15 kid palms tall.

   could be   crazy

   C. Mark, a second grader, and his dad measure the width of the same book with their palms. The width was 5 of Mark's palms and 3 of his dad's palms.

   could be   crazy

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Measure with Footprints

1. Work with a partner. Measure each distance using your footprint. Then use the Apatosaurus footprint. Measure to the nearest whole unit.

Distance	My Footprints	Apatosaurus Footprints
Line A		
Line B		
Line C		
Line D		
Line E		
Line F		

2. Compare the length of Line D to the length of Line C.

A. Which is longer? _____

B. How much longer? Write a number sentence to show how you solved the problem.

Number sentence _____

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3. A. A baby dinosaur and an adult dinosaur walked the same distance. Which measurement shows the distance the adult dinosaur walked?

30 footprints   60 footprints

B. Tell how you decided.

_____

_____

4. Decide if each statement "could be" or is "crazy." Circle one. Be ready to tell how you decided.

A. Tara says her hair is about 2 kid footprints long.

could be   crazy

B. Roberto is a second grader. He measured his height to be 10 Apatosaurus footprints tall.

could be   crazy

C. Ming measured Line M to be 20 of his footprints. Tanya found the same line to be 100 Apatosaurus footprints long.

could be   crazy

Tell how you decided. _____

_____

_____

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Measure with Footprints (SAB pp. 175–176)
Questions 1–4

1.

Distance	My Footprints	Apatosarus Footprints
Line A	Answers will vary	1
Line B	Answers will vary	3
Line C	Answers will vary	5
Line D	Answers will vary	4
Line E	Answers will vary	2
Line F	Answers will vary	6

2. A. Line C is longer than line D.

B. Responses depend on the unit students choose. Possible responses: Line C is about 20 of my footprints and D is 16. So C is 4 of my footprints longer. So C is 1 dino print larger. Possible number sentence: $20 - 16 = 4$ or $5 - 4 = 1$

3. A. 30 footprints

B. Possible responses: I knew that the adult would have bigger feet, so he would need less footprints; I knew that the baby would have smaller feet so he would need more footprints.

4. A. could be; Possible response: I thought about seeing two kid footprints of hair and I have seen kids with hair that long.

B. *crazy; Possible response: 10 Apatosaurus footprints would be taller than the ceiling in a typical classroom.

C. crazy; Possible response: The Apatosaurus footprints answer from Tanya should have gotten a smaller number, not a bigger number.

*Answers and/or discussion are included in the lesson.

Sam's Measurement (SAB pp. 177–179)
Questions 1–6

1. **A.** Sam's Footprint; Dad's Footprint

   B. Possible responses: I knew that Sam's footprints would be smaller, so he should get bigger numbers in his measurements; I knew that the Dad's footprints would be bigger, so he should get smaller numbers in his measurements.

2. Josh should get 30 footprints as well because his unit is exactly the same size if they are identical twins.

3. **A.** <

   B. <

   C. >

4. **A.** Line P is longer

   B. Responses depend on the unit students choose. Possible responses: 8 deer footprints longer; $12 - 4 = 8$, $4 + \boxed{8} = 12$, or $\boxed{8} + 4 = 12$; 2 elephant footprints longer; $3 - 1 = 2$ or $1 + \boxed{2} = 3$

Name _____ Date _____

Sam's Measurements

1. Sam and his dad measured lengths with their footprints. Their measurements are listed below. They forgot to label their measurements.

   A. Which measurements belong to Sam's dad and which belong to Sam? Write "Sam's Dad" or "Sam" above each column.

Distance	_____ Footprints	_____ Footprints
Length of Sam's Bed	30	10
Width of Sam's Bed	9	3

   B. Tell how you decided.

   _____

   _____

2. Sam has an identical twin brother named Josh. Josh measured the length of Sam's bed with his footprints. What answer do you think he would get? Why?

   Josh   Sam

   _____

   _____

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Name _____ Date _____

Sam measured lines of tape using deer footprints and elephant footprints. He collected his data in the chart below.

Distance	Deer Footprints	Elephant Footprints
Line P	12	3
Line Q	16	4
Line R	4	1

3. Compare the lengths. Use <, >, or =.

   A. 3 deer footprints ◯ 3 elephant footprints

   B. Line P ◯ Line Q

   C. Line Q ◯ Line R

4. Compare the length of Line R to the length of Line P.

   A. Which is longer? _____

   B. How much longer? Write a number sentence to show how you solved the problem.

   Number sentence _____

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Name _____ Date _____

5. Sam decided to measure the length of Line P in squirrel footprints. He made an estimate and so did his brother Josh.

> I think Line P will be about 10 squirrel footprints because a squirrel's footprint is smaller than an elephant's footprint.

Sam

> I think Line P will be about 24 squirrel footprints because a squirrel's footprint is smaller than an elephant's footprint.

Josh

Do you agree with Josh or Sam? Explain.

_____

_____

6. Decide if each statement "could be" or is "crazy." Circle one. Be ready to tell how you decided.

A. Sam estimated that the length of Line P to be about 6 squirrel footprints.

could be   crazy

B. Sam and his brother measured the length of the same room. Sam found the room was 8 elephant footprints and Josh found the room was 32 deer footprints.

could be   crazy

Tell how you decided. _____

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5. Possible response: I agree with Josh. Sam's estimate does not make sense. A squirrel is much smaller than a deer and Line P was 12 deer footprints.

6. A. Crazy, because it has to be more than the 12 deer footprints, as squirrel footprints are smaller.

B. Could be, because the number of deer footprints would be much more than elephant footprints, and that was what they found.

Teacher Guide

Furry Footprints (TG)
Homework
Questions 1–2

   I. Answers will vary.

  2. **A.** <

       B. >

       C. =

       D. <

Name _____ Date _____

Furry Footprints

Homework

Dear Family Member:
Your child has been using nonstandard units to measure lengths around the classroom. Cut out the two animal footprints and help your child use them to measure distances in your home. Measure "heel to toe".
Thank you.

1. Measure to the nearest whole footprint.

Distance	Raccoon Footprints	Black Bear Footprints
length of table		
height of chair		
length of a book		
width of refrigerator		
width of backpack		

2. Compare the lengths. Use <, >, or =.

  A. 2 raccoon footprints ◯ 2 black bear footprints

  B. 10 raccoon footprints ◯ 2 black bear footprints

  C. 3 raccoon footprints ◯ 1 black bear footprint

  D. 5 raccoon footprints ◯ 3 black bear footprints

TG · Grade 2 · Unit 4 · Lesson 1   Homework Master

Teacher Guide

Calling All Animals (TG)
Homework

Answers will vary.

Name _____ Date _____

Calling All Animals

Homework

Dear Family Member:
We are collecting stuffed or toy animals for a measuring activity. Please send in one toy animal that is taller than a sheet of paper (11 inches), and one shorter than a sheet of paper. **The toys will be returned at the end of the unit.**
Thank you.

Choose two toy animals. Draw a picture and name each animal.

Animal taller than a sheet of paper	Animal shorter than a sheet of paper

Animal Name _____   Animal Name _____

TG · Grade 2 · Unit 4 · Lesson 1   Homework Master

Teacher Guide