

HOW BIG IS AFRICA?

RECOMMENDED GRADES: 3-6



TIME NEEDED: 25 MINUTES

Description

Students develop a sense of scale by using their bodies and other tools to measure the length and width of Africa. They also compare the areas of familiar places, such as their home state, to the area of Africa.

Learning Objectives

Students will:

- learn how big Africa is in relation to the United States and their home state
- discuss the concept of scale and apply it by measuring distances in Africa

Materials

- Rope or chain (1 per group)

Preparation

5 minutes

- Read over the activity, and make adaptations for student grade level.

Tips/Modifications

Modification

- Substitute materials (color, size, type) for materials you have available.
- Make sure rope is long enough to measure 805 kilometers (500 miles) on the scale bar.

Rules



Have students remove shoes before walking on the map.

DIRECTIONS

1. Ask students: *Is Africa taller than it is wide or wider than it is tall?* Let's find out!
2. Select a few students to lie on their backs, head to toe, across Africa along its widest area (from the coast of Gambia in West Africa to the coast of Somalia on the East African "horn").
3. Select another group of students to do the same from the southernmost coast of South Africa to the northernmost coast in Tunisia. How many students "tall" is Africa? How many students "wide" is Africa? [It is usually about the same, depending on the height of the students chosen.]
4. To get an exact measure of these distances, have students use the scale bar on the map and measure out 805 kilometers (500 miles) on the rope. Assign some groups of students to measure the east/west distance and other small groups to measure the north/south distance. Multiple groups of students should do this and compare results. Compare the two distances. [They are similar.]

See how close students come to the actual distances. [The east/west distance from the coast of Gambia to the coast of Somalia is approximately 7,491 kilometers (4,655 miles). The north/south distance from the coast of Tunisia to the tip of South Africa is approximately 8,029 kilometers (4,989 miles)—only 538 kilometers (334 miles) difference.]

Share these comparisons with students:

- The distance from New York City to Los Angeles, California, is approximately 4,480 kilometers (2,800 miles).
- The total area of Africa is 30.4 million square kilometers (11.7 million square miles).
- The total area of the United States (including Alaska and Hawaii) is 9.6 million square kilometers (3.8 million square miles). Africa is more than three times the size of the US. See the chart below to compare your home state's size with the continent of Africa and with its largest country, Algeria.

OPTIONAL EXTENSION: HOW BIG IS THE SAHARA?

1. Have all the students sit on the Sahara. This area is about equal in size to the contiguous United States. Notice how much more of Africa there is outside of the Sahara.
2. Use the table below to have students make predictions about how many times their state would fit into Algeria and how many times their state would fit into Africa.

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State	Number of times you could fit your state into Algeria:	Number of times you could fit your state into Africa:
Alabama	18	223
Alaska	1	18
Arizona	8	103
Arkansas	17	220
California	6	71
Colorado	9	112
Connecticut	166	2,110
Delaware	369	4,699
District of Columbia	13,523	171,175
Florida	14	178
Georgia	15	197
Hawaii	84	1,070
Idaho	11	140
Illinois	16	202
Indiana	25	321
Iowa	16	208
Kansas	11	142

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State	Number of times you could fit your state into Algeria:	Number of times you could fit your state into Africa:
Kentucky	22	289
Louisiana	17	226
Maine	26	331
Maryland	74	943
Massachusetts	87	1,108
Michigan	9	121
Minnesota	10	134
Mississippi	19	242
Missouri	15	168
Montana	6	80
Nebraska	12	151
Nevada	8	106
New Hampshire	98	1,251
New Jersey	105	1,341
New Mexico	7	96
New York	17	214
North Carolina	17	217

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State	Number of times you could fit your state into Algeria:	Number of times you could fit your state into Africa:
North Dakota	13	165
Ohio	20	261
Oklahoma	13	167
Oregon	9	119
Pennsylvania	20	254
Rhode Island	595	7,571
South Carolina	29	365
South Dakota	12	151
Tennessee	22	278
Texas	3	44
Utah	11	138
Vermont	95	1,217
Virginia	21	273
Washington	13	164
West Virginia	38	483
Wisconsin	14	179
Wyoming	9	120

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