

Details



Completion Time: Less than a week

Permission: Download and Share

Where in the World is Our Teacher?

Overview:

Students will use maps to track the teacher's location.

Objectives:

Students will be able to use latitude and longitude to find locations on a map. They will be able to identify locations within Antarctica.

Materials

- McMurdo area Map
- Antarctica Map
- Student Worksheet

Materials:

McMurdo area map, Antarctica Map, AntarcticJourney Maps worksheet

Lesson Preparation:

Teachers will need to explain the concepts of latitude and longitude to the students.

Procedure:

1. You will be using these maps while I am gone so keep them in your Current Assignment section. Use pencil! (After you are sure you have everything labeled correctly, use colored pencils to go back over things).
2. On the map showing the entire continent, label each longitude line with the correct longitude and compass direction.
3. Use the latitude and longitude lines and plot McMurdo on both of the Antarctica maps. (Make a key.) (Hint: McMurdo is on a narrow peninsula of Ross Island)



4. The grey area on the map is ocean, the Ross Ice Shelf is also ocean but it is covered in permanent ice. Color in the oceans dark blue, the ice shelves a lighter blue and the ice covered continent- yellow. (Remember, never eat yellow snow.)
5. On the map showing the entire continent, draw a box which shows the region shown by the more detailed UW-Madison Weather Stations Map. How does this area compare to the McMurdo Sound Area insert, on the large map in the back of the room.
6. Find Ross Island on your map of the McMurdo region, the dark area under the letter N in the word "Island" is an active volcano called Mt. Erebus (label it with the letter E and add it to your key- record its latitude and longitude.)
7. On the left side of the island is another dark area, this is Mt Terror, label it (under the letter in "Ross" with the letter T, and add it to your key with the lat. and long.
8. When I fly to McMurdo we will either land at Willy Field or at Pegasus, which one will give me the longest commute on Ivan the TerraBus?
9. Will we be landing on the land or on the ocean? Why don't we drown?
10. If I have a choice at Happy Camper School, should I sleep in a tent, a quinzee (kind of like an igloo) or in a snow pit (a hole dug into the snow).
11. Throughout the time that I am in Antarctica follow my journals and plot and label the locations to which we travel.

Extension:

Students can follow additional research projects or expeditions in Antarctica and plot these on their maps.

Resources:

N/A

Assessment:

N/A

Credits:

Adapted from Australia's Department of the Environment and Heritage. For more information about this lesson, contact Kirk Beckendorf, kbeckendorf@polartrec.com.



National Science Education Standards (NSE):

NSES Content Standards, Grades 5-8

Content Standard A: Science As Inquiry

- b. Understandings about scientific inquiry

Content Standard G: History and Nature of Science

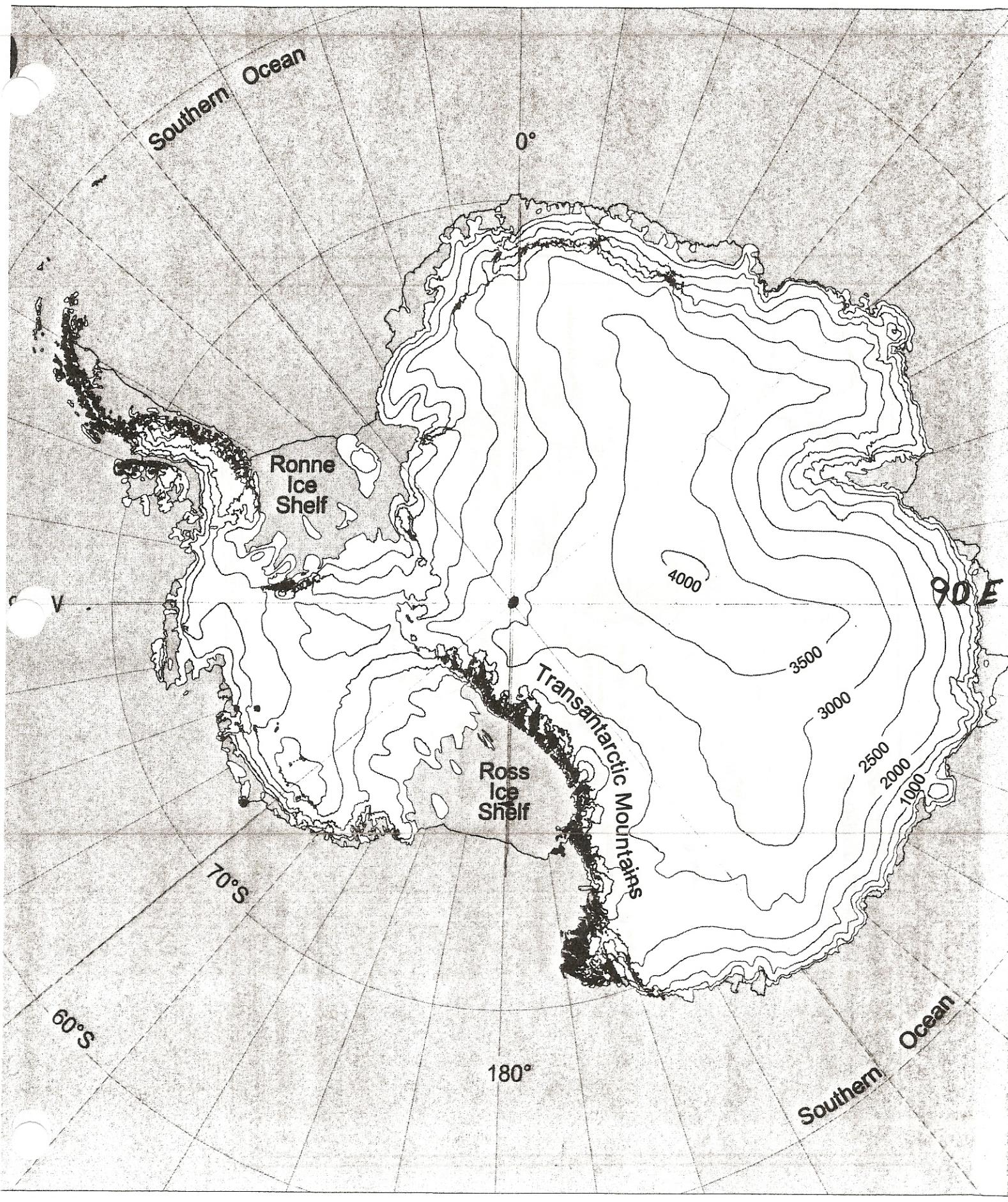
- a. Science as a human endeavor

Other Standards:

N/A

Student Worksheet for Where in the World is Our Teacher?

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- 2) On the map showing the entire continent, label each longitude line with the correct longitude and compass direction.
- 3) Use the latitude and longitude lines and plot McMurdo on both of the Antarctica maps. (Make a key.) (Hint: McMurdo is on a narrow peninsula of Ross Island)
- 4) The grey area on the map is ocean, the Ross Ice Shelf is also ocean but it is covered in permanent ice. Color in the oceans dark blue, the ice shelves a lighter blue and the ice covered continent- yellow. (Remember, never eat yellow snow.)
- 5) On the map showing the entire continent, draw a box which shows the region shown by the more detailed UW-Madison Weather Stations Map. How does this area compare to the McMurdo Sound Area insert, on the large map in the back of the room.
- 6) Find Ross Island on your map of the McMurdo region, the dark area under the letter N in the word "Island" is an active volcano called Mt. Erebus (label it with the letter E and add it to your key- record its latitude and longitude.)
- 7) On the left side of the island is another dark area, this is Mt Terror, label it (under the letter in "Ross" with the letter T, and add it to your key with the lat. and long. You can also check the USGS satellite picture (under the large map on the wall) to check that located everything correctly on your map.
- 8) When I fly to McMurdo we will either land at Willy Field or at Pegasus, which one will give me the longest commute on Ivan the TerraBuss?
- 9) Will we be landing on the land or on the ocean? Why don't we drown?
- 10) If I have a choice at Happy Camper School, should I sleep in a tent, a quinzee (kind of like an igloo) or in a snow pit (a hole dug into the snow).
- 11) Throughout the time that I am in Antarctica follow my journals and plot and label the locations to which we travel.



: Polar Stereographic
at 71°S

**University of Wisconsin - Madison
2007 Automatic Weather Stations
Ross Island Vicinity**

nrc.ssec.wisc.edu/images/awsmap_RossIsland.jpg