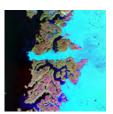
## Lamont-Doherty Earth Observatory Columbia University | Earth Institute

## HOW FAST IS YOUR GLACIER MOVING?

Scientists are measuring glacier movement in the polar regions to see how fast ice is moving into the world's oceans. Ice that moves from the land into the oceans contributes to rising sea level. Check your glacier against these famous polar glaciers!



ANTARCTICA'S PINE ISLAND GLACIER HAS BEEN MEASURED AT RATES OF TO 9.5 m/day (31 ft/day) (This fast flowing glacier on the West coast of Antarctica empties into the Amundsen Sea)



GREENLAND'S JAKOBSHAVN ISBREA (GLACIER) HAS BEEN MEASURED AT RATES OF UP TO 34.3 m/day (113 ft/day) (This is the fastest moving glacier in the world, emptying into Disko Bay off the west coast of Greenland)



ANTARCTICA'S BYRD GLACIER HAS BEEN MEASURED AT UP TO 2.9 m/day (9.5 ft/day) (This glacier drains an extensive area from the East Antarctic Ice Sheet into the Ross Ice Shelf)



YOUR GLACIER! \_\_\_\_\_ PLACE YOUR GLACIER AT THE LINE MARKED "10 CMS START HERE". USE A STOPWATCH AND TIME HOW LONG IT TAKES THE LEADING EDGE OF YOUR GLACIER TO TRAVEL TO THE BOTTOM OF THE GRID. NOW CALCULATE:

1) 10 CM \_\_\_\_\_\_MINUTES X 10 = \* \_\_\_\_\_MINUTES TO TRAVEL <u>1 METER</u>

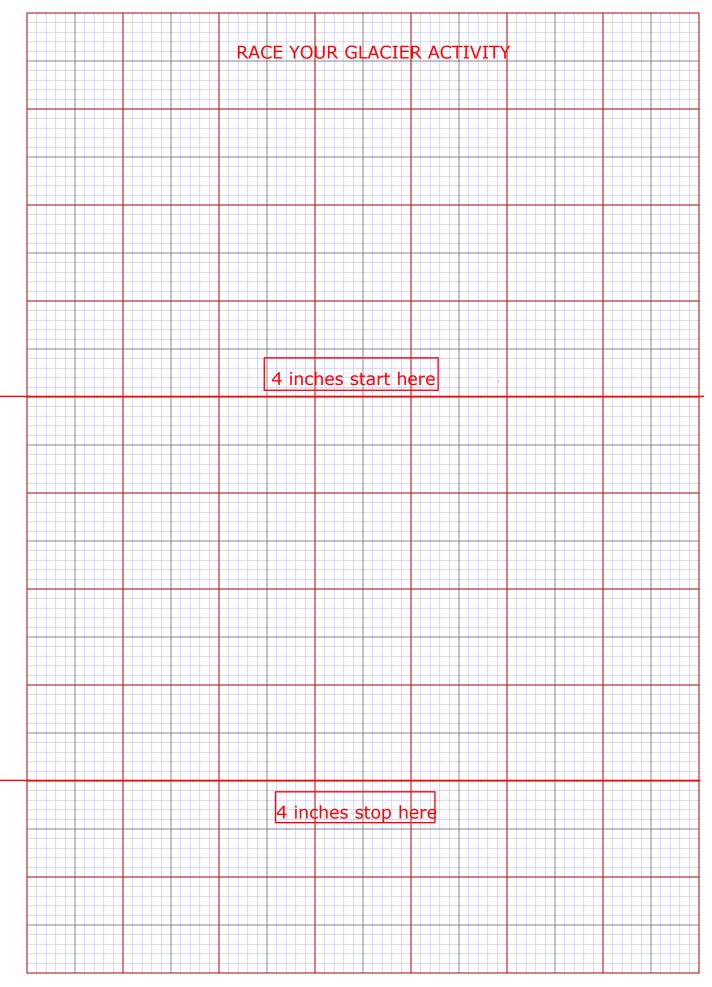
2) SO HOW FAR WILL IT GO IN A DAY? CALCULATE MINUTES IN ONE DAY:

60 MINUTES IN ONE HOUR X 24 HOURS IN A DAY = 1,440 MINUTES/DAY

3) FOR YOUR ANSWER WE NEED 1440 /\* \_\_\_\_ YOUR TIME FROM QUESTION #1 HOW MANY METERS WILL YOUR GLACIER MOVE IN A DAY? ANSWER = \_\_\_\_

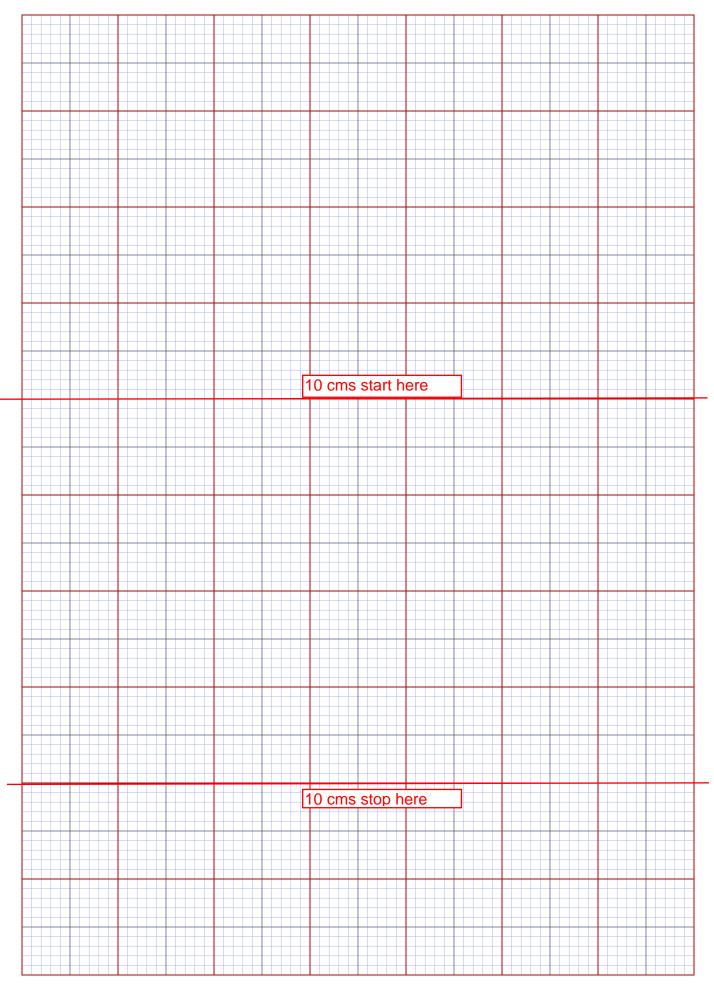
HOW DID YOUR GLACIER STACK UP AGAINST THESE POLAR LEGENDS?

Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY | EARTH INSTITUTE More Activities: http://www.ldeo.columbia.edu/polareducation Laminate sheet and place on an a matboard incline in a plastic shoebox



Free Multi-color Graph Paper from http://incompetech.com/graphpaper/multicolor/

## metric option



Free Multi-color Graph Paper from http://incompetech.com/graphpaper/multicolor/