Shrinking Everest?

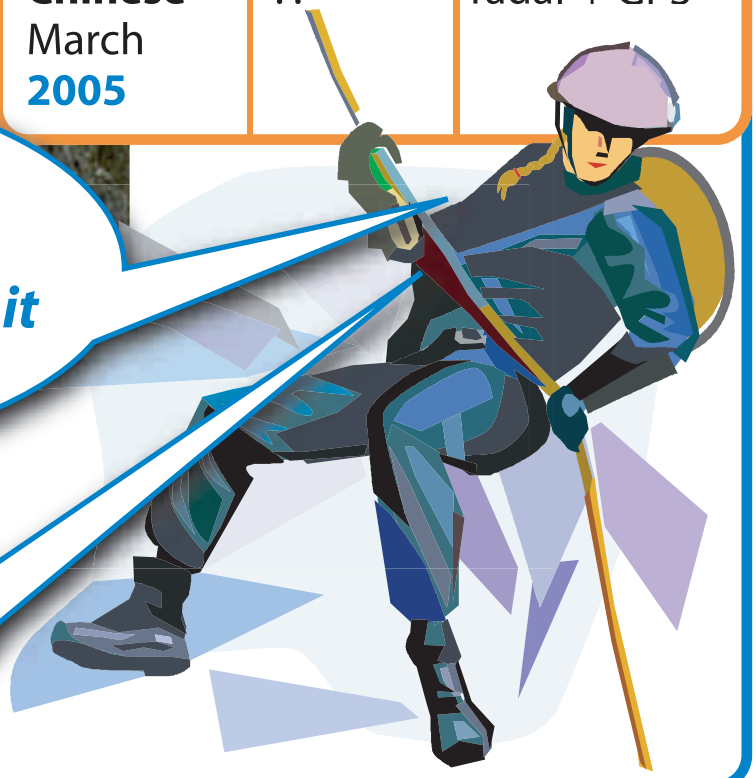
Survey	Height	Technique
British 1856	8,840 m	line-of-sight
Indian 1954	8,848 m	line-of-sight
Chinese 1975	8,848 m	line-of-sight
American 1999	8,850 m	radar + GPS
Chinese March 2005	??	radar + GPS

1. *Study the information cards*
2. *Choose processes that could explain:*
   - *a height INCREASE*
   - *b height DECREASE*
3. *Write a prediction for this year's height and give your reasons.*

Everest seems to be getting shorter.

We're going to measure it again to check.

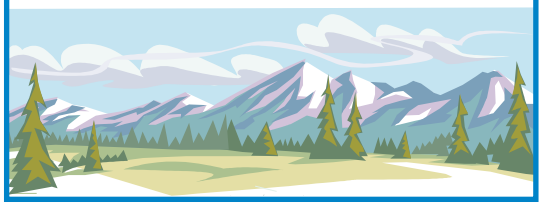
Can you estimate the result we'll get?



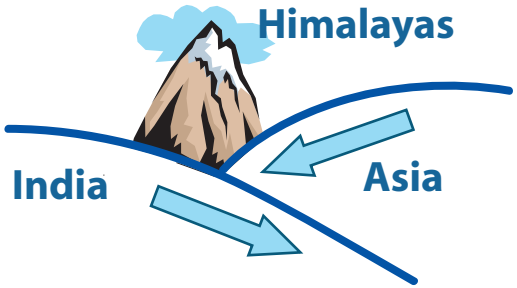
The Everest photo is curtesy of Dave Thompson

Information cards

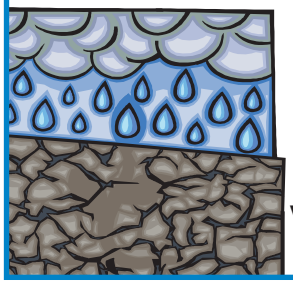
The summit of Everest is covered with 1–6 metres of soft snow. **Global warming speeds its conversion to rock hard ice,** which takes up less room.



Tectonic plate movement is **forcing Everest upwards** by nearly 1 cm/year.

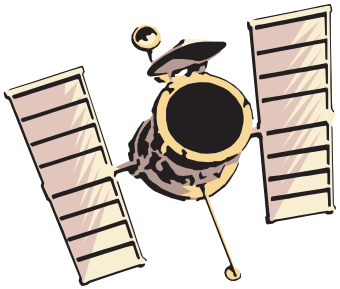


On average, erosion reduces the height of continents by 6cm/ 1000 years. **Heavy monsoon rains erode rocks faster** – especially where there is no vegetation.

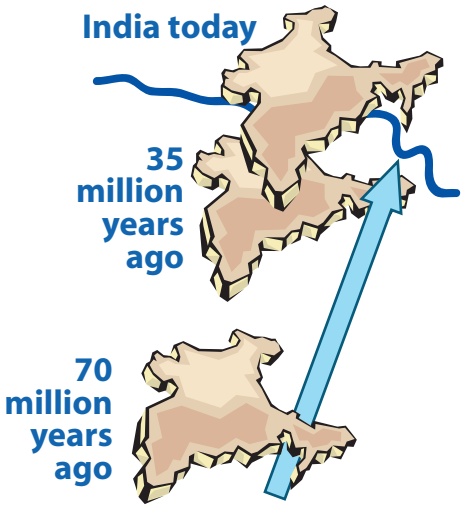


Glaciers are melting higher up Everest because of global warming. **The water they release increases erosion further down the mountain.**

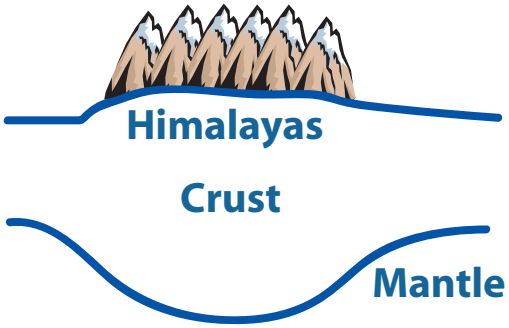
Line-of-site measurements made in 1954 differed by roughly 5 metres. **GPS measurements are much more reliable.**



Everest is moving NE at around **2cm/year.**



Mountains float like icebergs on the mantle below. **When erosion reduces their weight, they rise.**



The top of Everest is made of soft sedimentary rocks like limestone. **These erode easily** when they are not frozen solid.