



## Figs. 1A and 1B for Question 1

## Types of sand dune found in hot arid environments

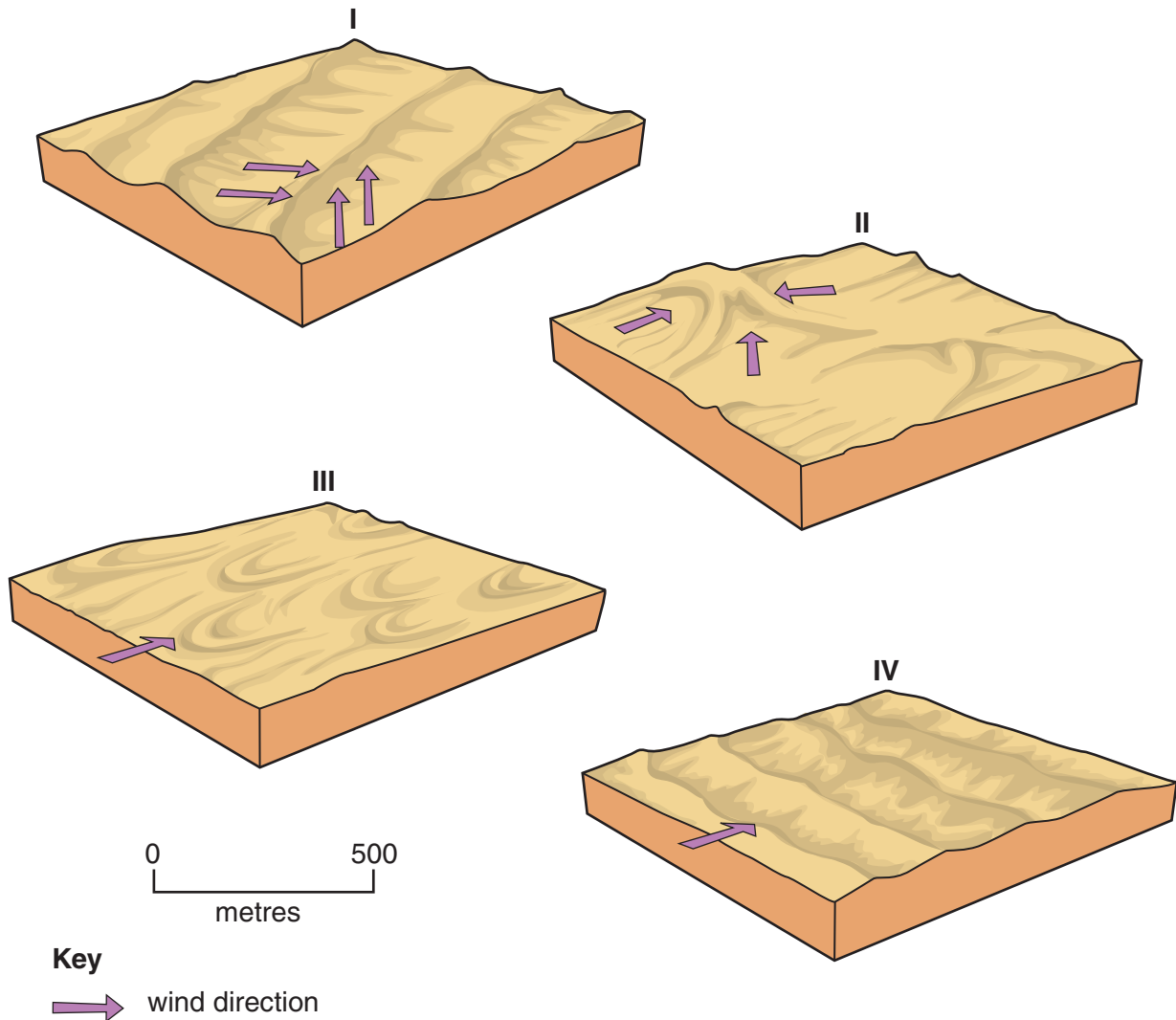


Fig. 1A

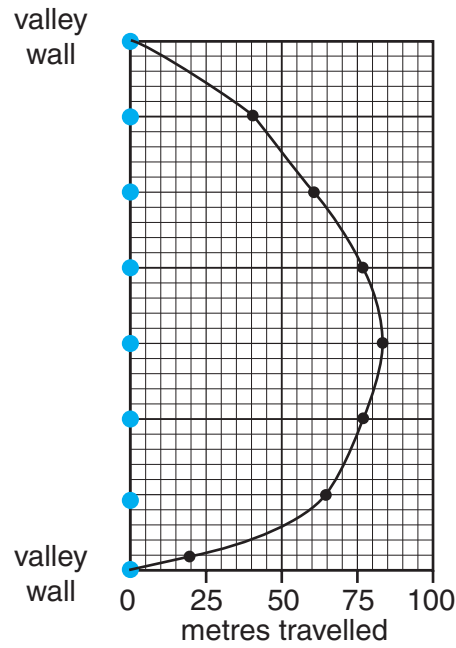
## Different types of sand dune

W	Crescent-shaped dune with horns pointed downwind. Can be scattered over bare rock or desert pavement or commonly in dune fields.
X	Asymmetrical ridge, transverse to wind direction.
Y	The giant of dunes. Pyramidal with three or more sinuous radiating arms extending outwards from a central peak.
Z	Long, slightly sinuous, ridge-shaped dune, aligned parallel with the wind direction.

Fig. 1B

Figs. 2A and 2B for Question 2

Plan view of a glacier



Key

- original position of marker poles
- position of marker poles after one year

Fig. 2A

Changes of velocity with depth in a glacier

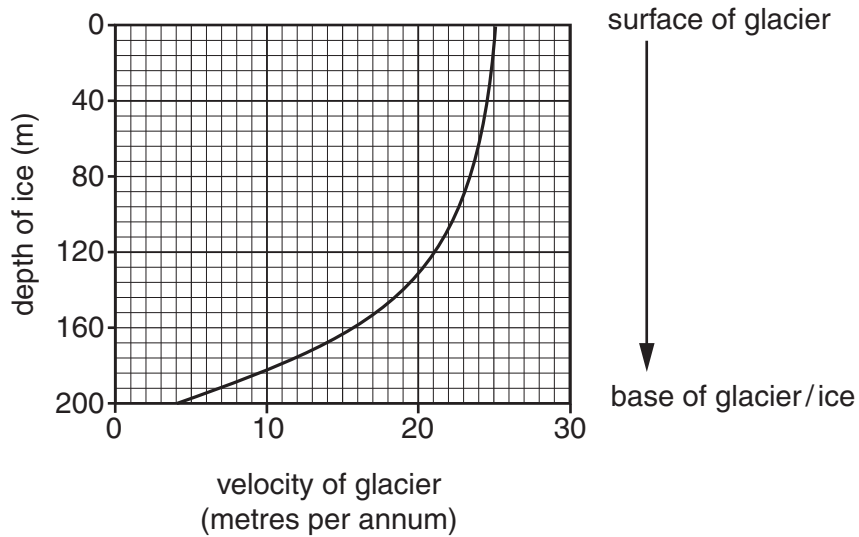


Fig. 2B

Photograph A for Question 3



Fig. 3 for Question 4

Cartoons about human impact on tropical rainforests



Figs. 4A, 4B and 4C for Question 5

Nutrient cycling for three temperate ecosystems

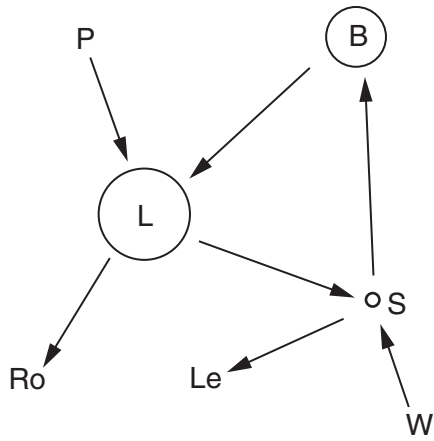


Fig. 4A

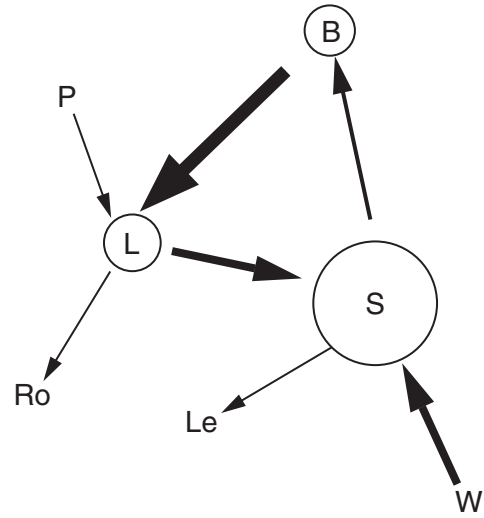


Fig. 4B

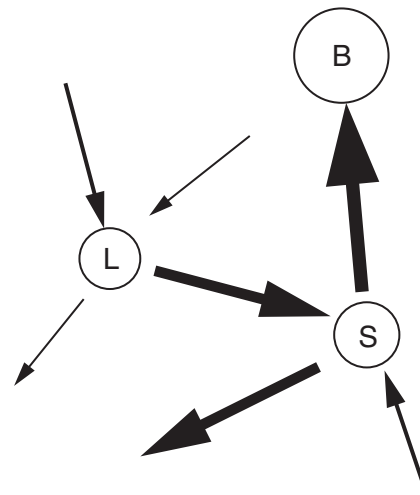
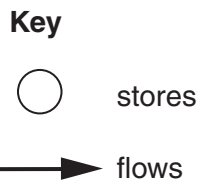


Fig. 4C



**Fig. 5 for Question 6****'My life as a lukewarmer'.**

This extract is a paraphrased version of a blog posted during 2015.

I am a 'climate lukewarmer'. That means I think recent global warming is real, mostly man-made and will continue but I no longer think it is dangerous and it will be slow and erratic in the future. This view annoys some scientists who insist climate change is a big risk.

I do think coal, oil and gas have been a good thing so far but I am an advocate and supporter of renewable energy.

I was not always a lukewarmer. When I started as the science editor of The Economist 25 years ago, I thought enhanced global warming a genuinely dangerous threat. However, my changed view was supported by the 5<sup>th</sup> Assessment Report of the IPCC (published in September 2014) that quietly downgraded the warming it expected in the 30 years following 1995, to about 0.5 degrees Celsius, from 0.7 degrees Celsius, proof perhaps that I may be correct!

**Fig. 5**

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