Figure 19

A _____ zone Zone of M _____ and T_____ A _____ zone

Icecap

Volcanic Bedrock

L _ _ _ _ _ _ _ _ _

snout

Height in metres

1500 · 1200 · 900 · 600 · 300 · 0

14km

(C) Glacials and Interglacials

READ: Gl___ *advance* and ___ial *retreat* are ___ fe___ure of ___al period___.

- During times of ___ *advance*, the amount of **accumulation** in the mountain is **greater** than the amount of **ablation** (melting) at ___e glacier's **snout**. As a result ___ this ___ glacier **lengthens**.
- During times of **glacial** *retreat*, the amount of **accumulation** in the mountains is **L _ _ _** than the amount of **ablation** (**melting**) at the glacier's **snout**. As a result of this the glacier **S H ___ _ E N S**.

TASK:

(c) **Complete** the table below by **drawing** or **shading horizontal bars** to indicate the changing lengths of the **Sólheimajökull** glacier over the last 300 years:-

Date	Length	A/R*						
1705	14.8							
1740	15.2	A/R						
1783	13.2	A/R						
1794	14.8	A/R						
1820	15.2	A/R						
1870	15.2	A/R						
1932	14.75	A/R						
1970	13.8	A/R						
1995	14.3	A/R						
2005	13.9	A/R						

(d) ***Highlight** the appropriate letter (**A** or **R**) to indicate whether the Sólheimajökull was **Advancing** or **Retreating** at each date in the above table.

(e) Presently we are in an **interglacial** period i.e. **global temperatures** are **rising**.

- What therefore "fits" about Sólheimajökull at the present time?

_____

- In terms of accumulation and ablation, what must be the present situation with regards to Sólheimajökull?

_____

B: Beach Sorting

READ: As a consequence of the **weaker/stronger** (delete) **swash** and the **weaker/stronger** (delete) **backwash**, beach materials become **sorted**. **Large materials** are left at the **back** of the beach and **finer materials** are drawn back down towards the **water's edge**. Over months and years of **swash** and **backwash** the beach becomes quite clearly **sorted** or **graded**. Figure 42 illustrates this action:-
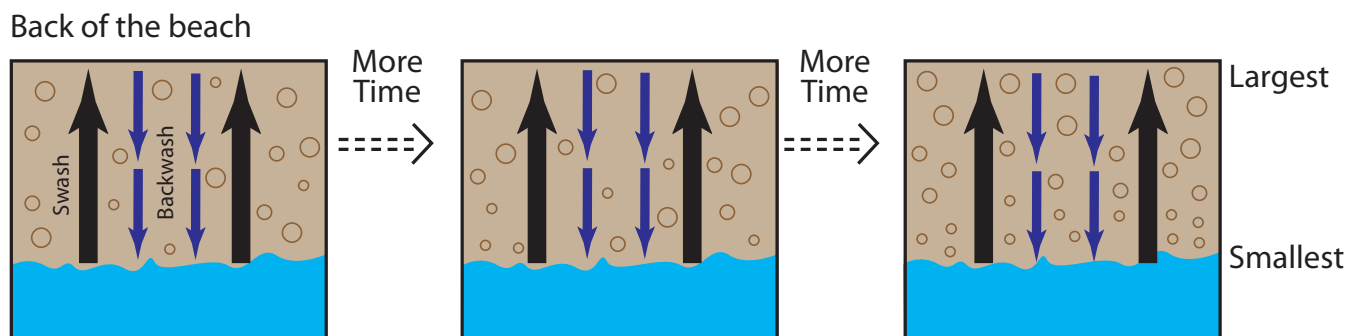
Back of the beach

Figure 42

READ: The photograph opposite (figure 43) shows part of the beach at Reynishverfi.

TASK:
(c) Into the table below, describe all that you can about the beach deposits as seen in the photograph

Figure 43

Feature	Description
Size(s)	
Shape(s)	
Colour(s)	
Location on beach	

(d) Select any two of the above four features. Then:-

(i) Enter your two choices into the table below;

(ii) For each chosen feature, fully explain why the feature is the way it is.