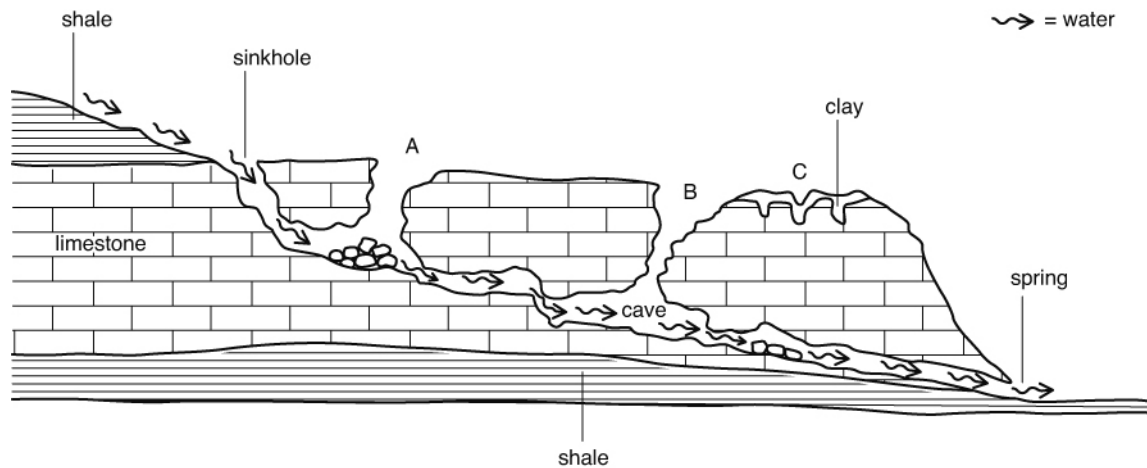


Landscapes formed on limestone, like the Yorkshire Dales, have several distinctive features that are not seen anywhere else. These features occur because limestone reacts with slightly acidic rainwater, and often has lots of joints (cracks) in it.

Sinkholes are places where streams disappear into cracks in the limestone.

Dolines are dips or openings in the ground.

- Solution dolines are formed as rainwater seeps down through the soil and then starts to dissolve the limestone underneath, forming a drainage outlet at the bottom.
- Collapse dolines form when rock collapses into a cave beneath.
- Subsistence dolines or shakeholes form when soil is washed down a crack in the rock, and a dip in the grass surface is formed.



- 1 How do you think the sinkhole and cave formed?
- 2 Look carefully at the diagram. Which kind of feature are A, B and C? Explain your reasoning.
- 3 Describe what you would see if you stood near:
  - a sinkhole
  - a spring
  - a shakehole.
- 4 Look carefully at the layers of shale shown in the diagram. Write down one difference in the properties of shale and limestone.
- 5 How would the diagram above be different if it were drawn in a thousand years' time? Either describe the differences, or draw another diagram to show the differences. Explain your reasoning.
- 6 Optional extra: Find out what clints and grykes are and how they are formed.

**I can...**

- obtain relevant information from texts and diagrams
- describe how chemical weathering can affect limestone.