

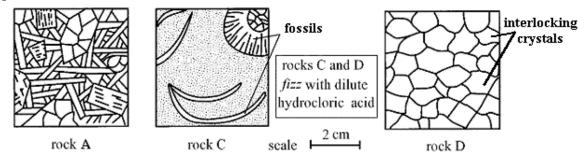
Extension Question: Igneous & Metamorphic Processes



E.6. Figure 6a shows some sedimentary rocks that have been intruded by two igneous bodies A and B.

not to scale Igneous body Fig. 6a B C. De х х Х X X Igneous body Х A X X Х -M-X х metamorphic zone

Figure 6b (below) shows polished surfaces of three types of rock from Figure 6a.



- (a) Rock A was collected from igneous body A.
 - (i) Using the scale, write down whether it is *coarse*, *medium* or *fine*-grained
 - (ii) How would the grain size of igneous body **B** differ from igneous body **A**? Give a reason for your answer.
- (b) Rocks C and D in Fig. 6b were collected from locations C and D on Fig. 6a.
 - (i) State **one** piece of evidence to suggest that rock **C** is most likely to be a *sedimentary* rock.
 - (ii) Rocks **C** and **D** both give a fizzing reaction when a drop of dilute hydrochloric acid is placed on them. What does this tell you about them?
- (c) Rock **D** is a *metamorphic* rock. It once looked like rock **C**.
 - (i) State two ways in which rock D is different in appearance from rock C.
 - (ii) State the correct rock names for rocks C and D.
 - (iii) Explain how rock **C** was metamorphosed to become rock **D**.