

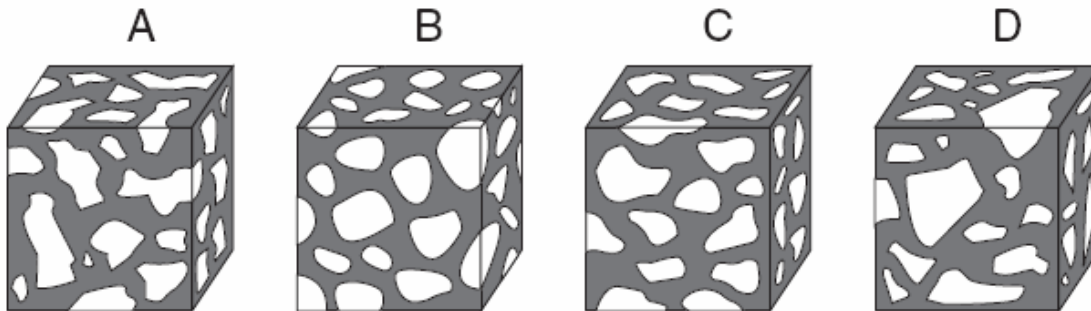
## Rock Review

Use the picture to the right to answer questions 1-2.

1. What caused the banding in this rock sample?
2. What is the name of this rock?

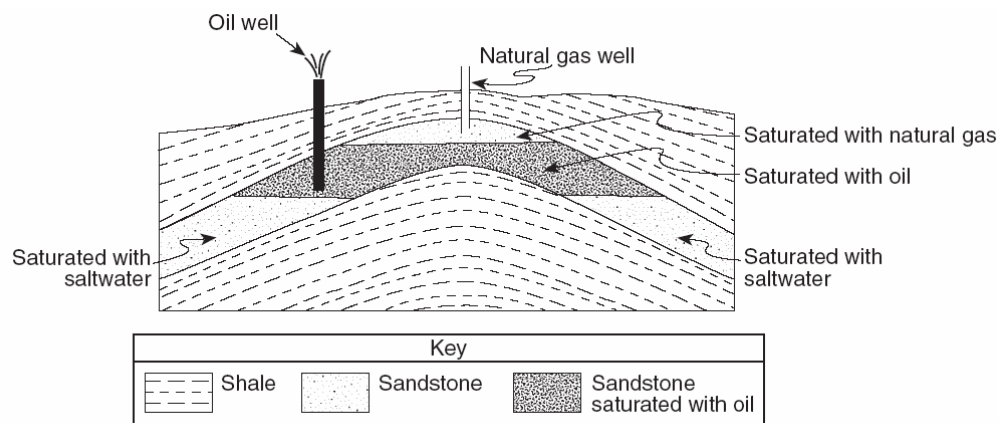


Use the picture below to answer questions 3-5.



3. Which two samples could be BRECCIA?
4. Which two samples could be CONGLOMERATE?
5. What observational information did you use to make your decision?

Use the diagram below to answer questions 6-8.



6. How is it possible that SANDSTONE could be saturated with liquid oil or water?
7. Why is the natural gas above the oil and the saltwater?
8. What is the grain size of the sandstone layer?

Use the tables below and your ESRT to answer questions 9-12.

Table 1

Gemstone Mineral	Composition	Hardness	Average Density (g/cm <sup>3</sup> )
emerald	Be <sub>3</sub> Al <sub>2</sub> (Si <sub>6</sub> O <sub>18</sub> )	7.5–8	2.7
sapphire	Al <sub>2</sub> O <sub>3</sub>	9	4.0
spinel	MgAl <sub>2</sub> O <sub>4</sub>	8	3.8
zircon	ZrSiO <sub>4</sub>	7.5	4.7

KEY	
Al = aluminum	O = oxygen
Be = beryllium	Si = silicon
Mg = magnesium	Zr = zirconium

Table 2

Moh's Scale of Hardness
1 talc
2 gypsum
3 calcite
4 fluorite
5 apatite
6 feldspar
7 quartz
8 topaz
9 corundum
10 diamond

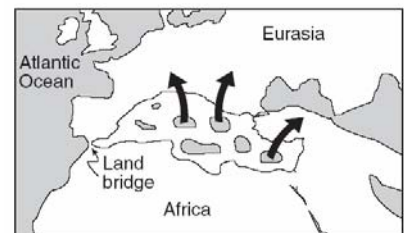
9. What element is found in all four of the above samples?
10. How many minerals will sapphires scratch on page 16 of your ESRT?
11. Using Table 2 and your ESRT, between which two minerals will Dolomite go between?
12. What happens when acid is applied to Calcite?

Use the picture to the right to answer questions 13-15.

13. What happened to the Mediterranean Sea about 6 million years ago?
14. Name three sedimentary rocks that could have formed when the water evaporated.
15. During which period did this time line take place?



About 10 Million Years Ago

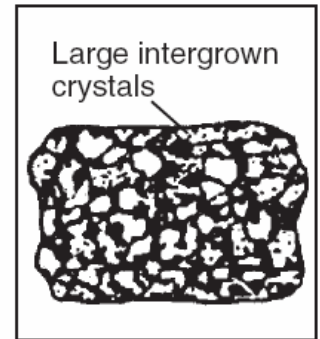
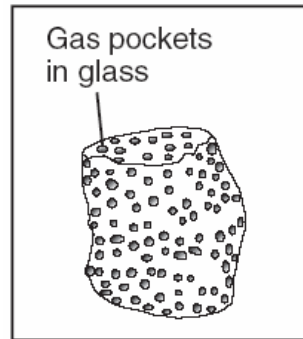
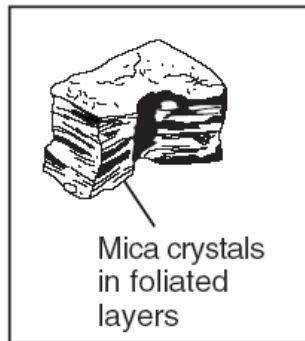
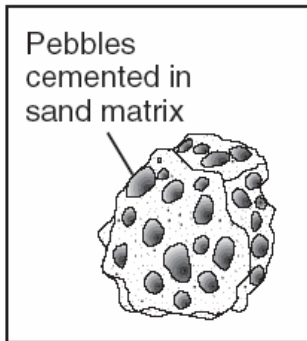


About 8 to 5.5 Million Years Ago  
Evaporation from Mediterranean Sea



About 4 Million Years Ago  
Mediterranean Sea Refills  
with Atlantic Ocean Water

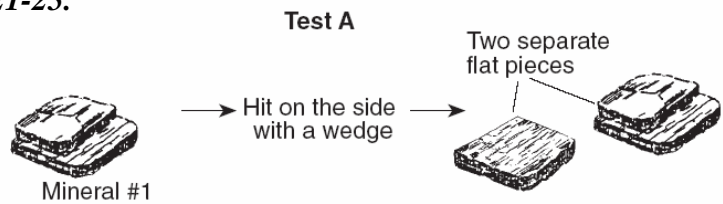
Use the following pictures to answer questions 16-20.



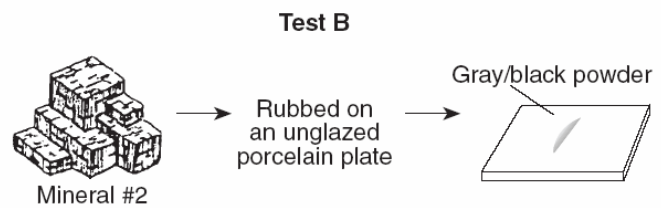
16. Put an S under the sedimentary rock.
17. What is the name of that sedimentary rock?
18. Put an E under the extrusive igneous rock.
19. Put an M under the metamorphic rock.
20. Put a G under the rock that could be granite.

Use the diagram to the right to answer questions 21-25.

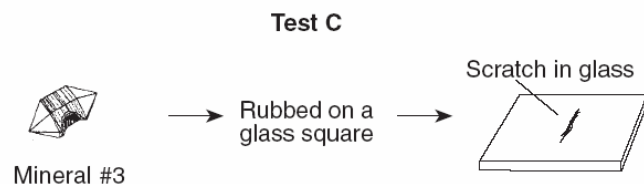
21. Mineral test A is testing....



22. Mineral test B is testing...



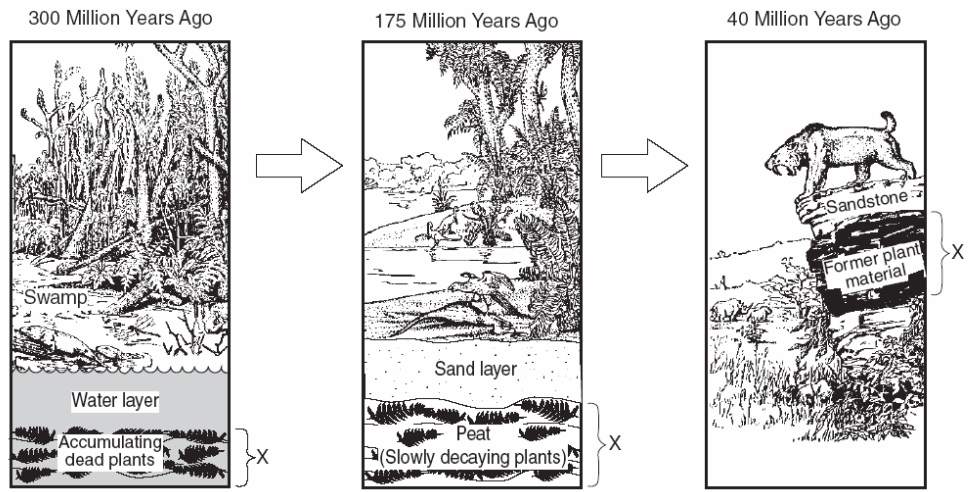
23. Mineral test C is testing...



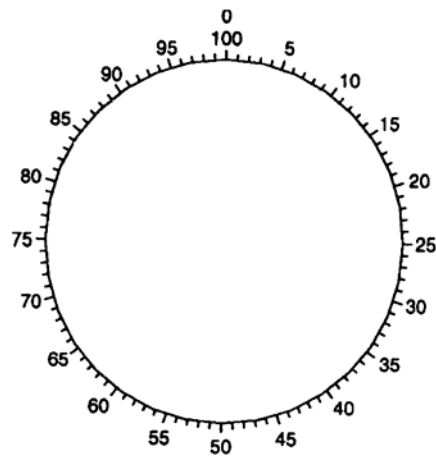
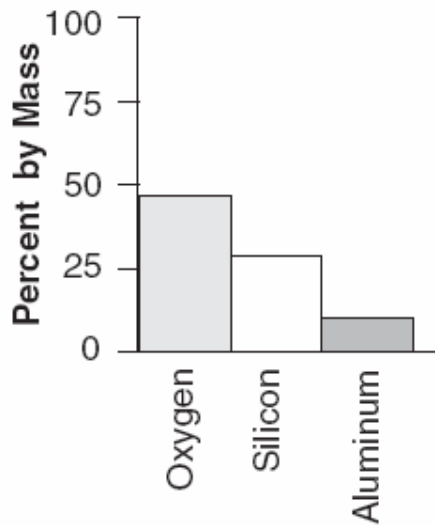
24. Which of the following tests is the most reliable?

25. Which mineral test is the least reliable?

26. Name rock layer X.



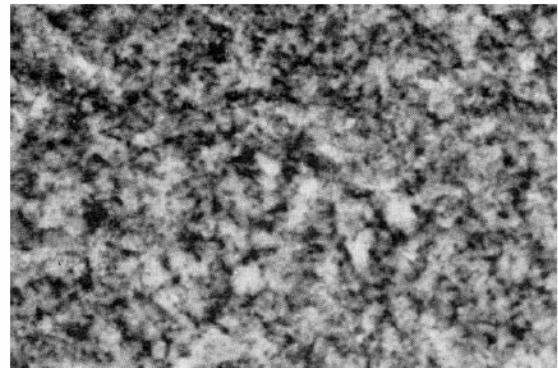
27. Create a pie graph from the following data.



Use the following picture to answer questions 28-29.

28. What rock could this be?

29. What observational clues did you use?



(Shown to actual size)

30. What two processes formed these layers?

