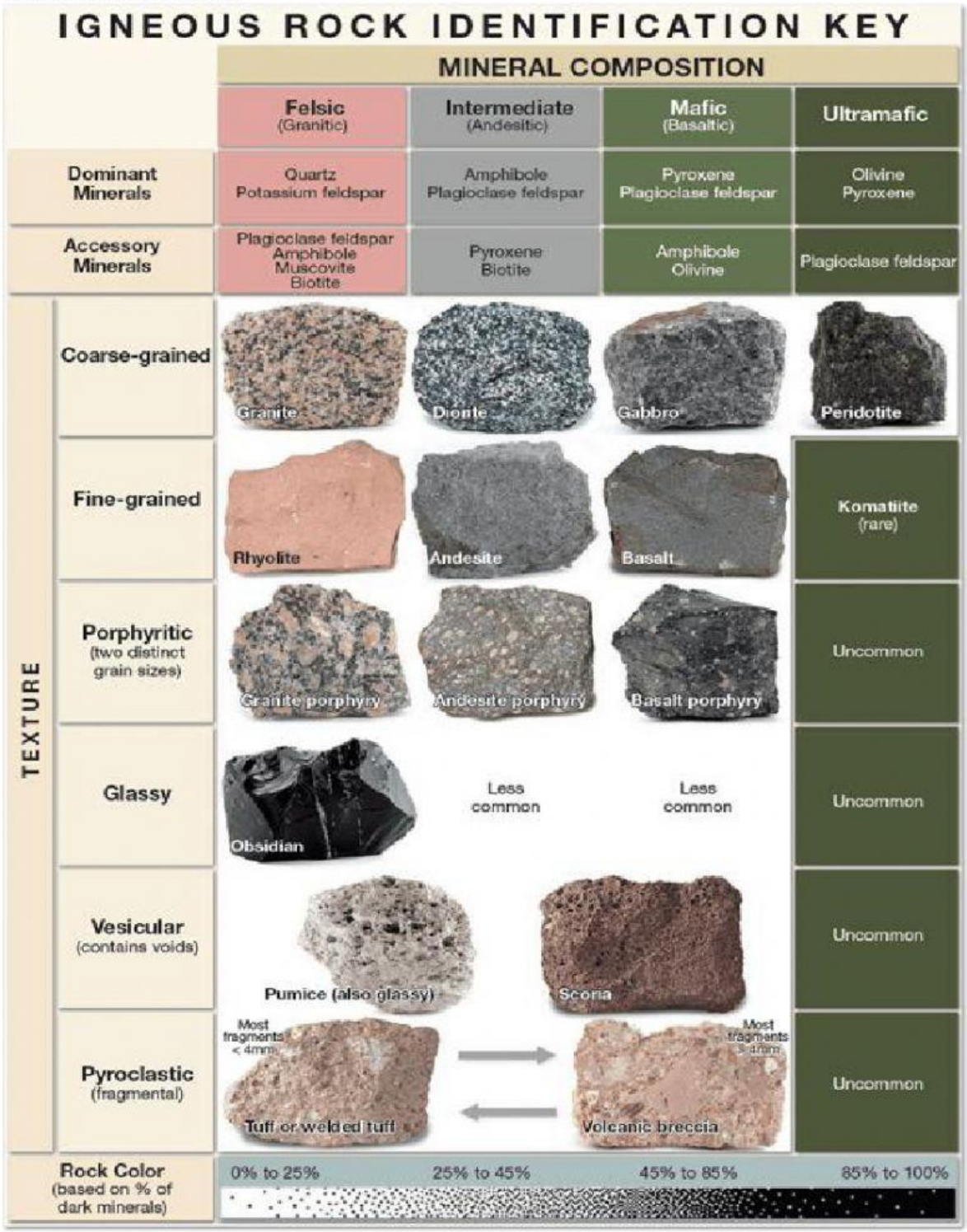
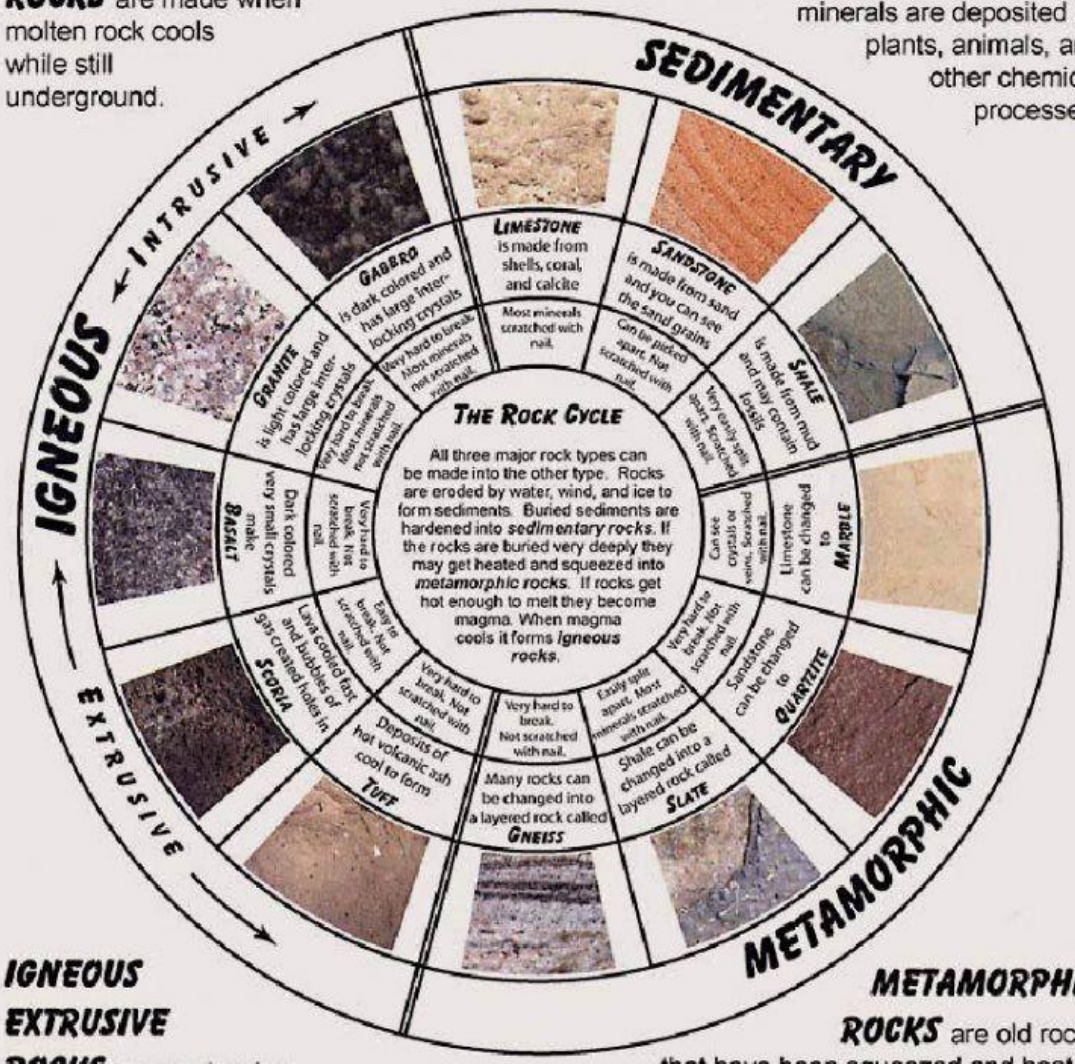
4.3 Mineral Identification



HOW TO IDENTIFY ROCKS

IGNEOUS INTRUSIVE ROCKS are made when molten rock cools while still underground.

SEDIMENTARY ROCKS are made when pieces of rocks settle from the water or when minerals are deposited by plants, animals, and other chemical processes.



IGNEOUS EXTRUSIVE ROCKS are made when molten rock flows on the land surface or is thrown into the air and then is cooled into rock.

METAMORPHIC ROCKS are old rocks that have been squeezed and heated but not melted. What new rock is made depends on what the original rock was and on the amount of heat and pressure.

Source: Bill Langer, U.S. Geological Survey.

http://www.bedrockquarry.com/images/identify-rocks.jpg

1. Orange Calcite
2. Blue Calcite
3. Green Calcite
4. Citrine Calcite
5. Sodalite
6. Labradorite
7. Quartz Crystal
8. Banded Amethyst
9. Fluorite
10. Blue Lace Agate
11. Pyrite Chispaz
12. Peacock Ore
13. Bloodstone
14. Tiger Eye
15. Leopard Skin
16. Rose Quartz
17. Copper Nugget
18. Kabamba Jasper
19. Dalmation Stone
20. Chrysocolla
21. Snowflake Obsidian
22. Citrine Crystal
23. Green Quartz
24. Clear Quartz (Rock Crystal)
25. Red Jasper
26. Magnesite

1. How does streak differ from colour?

2. How does cleavage differ from fracture?

3. List a few minerals and the property that makes each of them unique; e.g. magnetite is magnetic.

1. What colour streak would pyrite leave on sandpaper?

2. What colour streak would real gold leave on sandpaper?

3. List some examples of the different types of quartz.

4. What characteristic do all types of quartz share?

5. What is unique about mica?

6. What is mica used for?

7. What was azurite used for in ancient times?

8. In what colours can calcite be found?

9. What colour does green calcite streak? Is this true for all colours of calcite?

10. What is galena?

11. How can you tell that fluorite is not a calcite mineral?

12. How many sides does garnet have?