

Earth Science 11

Unit 3 – Minerals and Rocks

Day 3 – Mineral Identification Cheat Sheet

Name: _____

Date: _____

Block: _____

Physical Properties of Minerals (underlined properties can be easily identified in our lab):

Colour

Streak

Lustre

Hardness

Crystal Habit

Cleavage

Fracture

Specific Gravity

Magnetism - magnetite

Effervescence – calcite

Feel - graphite

Double refraction - calcite

Smell - sulfur

Taste – halite (BUT PLEASE DON'T)

Fluorescence - calcite

Luster:

Metallic - pyrite

Submetallic - magnetite

Non-metallic - quartz

Adamantine – garnet

Dull - kaolinite

Earthy - goethite

Greasy - graphite

Pearly - talc

Resinous - biotite

Silky – gypsum

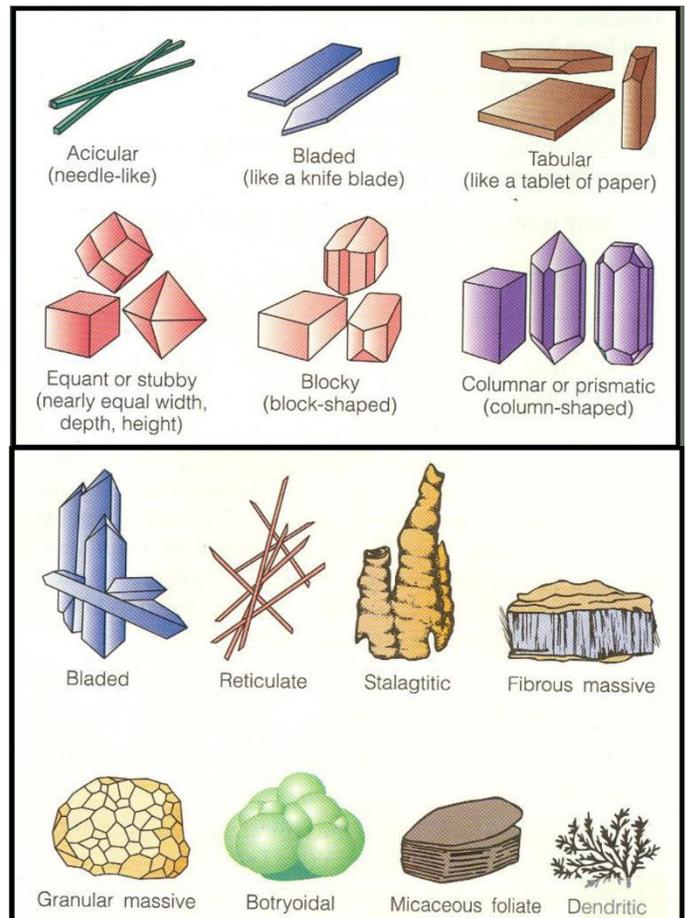
Vitreous - quartz

Waxy - barite

Mohs Scale of Hardness:

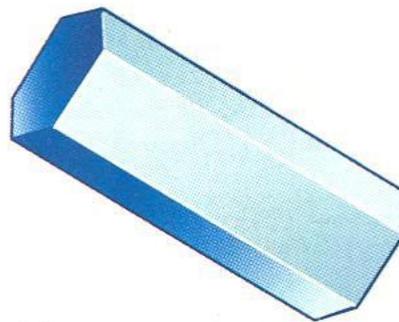
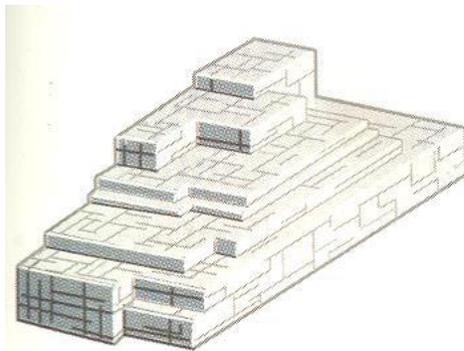


Habit:



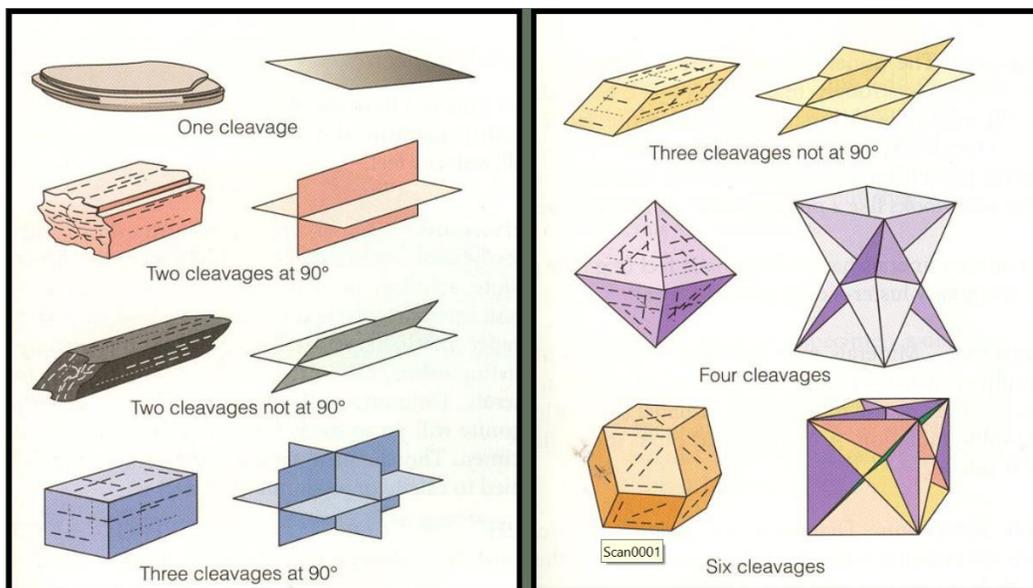
Cleavage vs Crystal Faces:

Cleavage:
Cleavage planes are often repeated, like a series of steps



Crystal: Crystal faces are single surfaces, no repetition of the crystal face within a crystal

Cleavage planes:



Pyroxene vs. Amphibole:

Pyroxene and amphibole have distinct cleavage angles:

Pyroxene: two good cleavages at right angles (nearly 90 degrees)

Amphibole - Hornblende: two good cleavages at more oblique angles (60 and 120 degrees)

