Composition Key Phaneritic Igneous Rocks Pinkish, Reddish ORTHOCLASE ALKALIGRANITE >PLAGIOCLASE **MAFICS** <10% PLAGIOCLASE Whitish, PLAGIOGRANITE **Q**UARTZ >ORTHOCLASE > 20% Salt & Pepper white>black PLAGIOCLASE GRANODIORITE Light-colored rocks ≥ ORTHOCLASE Quartz 0-5% Syenite pinkish ORTHOCLASE Plag. 0-35% 65-100% Mafics < 10% Quartz Qtz. Syenite 5-20% FELD-**SPARS** MONZONITE white-ish Ortho 10-35% 80-100% Mafics < 10% Quartz Qtz. PLAGIOCLASE 5-20% MONZONITE 35-100% Plagio. >90% mid to dark gray Pyroxene ANORTHOSITE Inte Salt & Pepper black≥white Light-colored MAFICS/ DIORITE **PLAGIOCLASE PLAGIOCLASE** Dark gray or Mafic Dark-Gray PYROXENE; $\simeq 50/50\%$ GABBRO rare Olivine Plagioclase brown-gray Pyroxenite 60-100% 0-40 % brown; black **M**AFICS OLIVINE Light to dark 🕿 PERIDOTITE 90-100% 40 - 90 % 10-60% Dark-colored rocks **OLIVINE** Pale-green Black Chromite DUNITE glassy grains crystals typ. Each circle is a view through the microscope. The entire circle represents 100%. The black areas represent various percents of the total circle, ranging from 1% to 50%. Study the rock through the microscope and compare the abundance of any particular component with these charts to get the percent abundance of the component. Observe the following:

1. A 50% abundance looks more than 50%

background.

Begin estimates with dark or distinctively

colored fragments since they are easier to

Begin estimates with less abundant fractions rather than the most abundant fractions.

Small fractions are easier to pick out of the

(because the eye sees the dark areas easier

Igneous Rock Classification Based on Composition and Texture

