Geology 100
Notes on Planet Earth version 3.0

Review - Exam 3
Chapter 8
General features

- Solid-state recrystallization
- Protolith
- Fabric
- Foliation
- Non-foliated
Examples

• Slate, phyllite, schist, gneiss
• Marble, quartzite, amphibolite
Common Non-foliated Metamorphic Rocks

Marble
Limestone

Quartzite
Quartz arenite
Chert

Amphibolite
Basalt
Types of Foliated Metamorphic Rocks

- Slate
- Phyllite
- Schist
- Gneiss
Contact metamorphic aureole

- hornfels
Geothermal Gradient and Isotherms

- Continental interiors – 30°C/km
- Magmatic arcs – 50°C/km
- Subduction zones – 10°C/km
Phase diagrams

$\text{Al}_2\text{SiO}_5$

Andalusite, sillimanite, and kyanite all have the same chemical formula: $\text{Al}_2\text{SiO}_5$