



Metamorphic Rocks

Read Pages 76-79

Topic 19 "What Metamorphic Rocks Are" (page 76)

meta means "change" & morph means "form"
metamorphic means "change form"

Metamorphic rocks are igneous or sedimentary rocks that have been changed by the action heat, pressure and chemicals

- **marble* – from limestone, fizzes in acid
- **slate* – from shale, more dense
- **quartzite* – from sandstone, less porous, very hard
- **gneiss* – from granite, thick bands of light and dark minerals

Topic 20 "Regional Metamorphism" (page 76-77)

large areas of rock under intense heat and pressure
rocks become more dense, less porous, minerals rearranged, altered

- *heat from friction and internal heat/radiation
- *pressure from weight and squeezing motions
- *hot water, steam, gases, liquids also add heat and pressure

Topic 21 "Metamorphism of Shale" (page 77)

minerals squeezed into parallel bands - **foliations**

- **shale* + heat & pressure = *slate*
- *further heat and pressure *slate* becomes shiny *phyllite*
- *further heat and pressure produces thin wavy, flaky *schist*

Topic 22 "Contact Metamorphism" (page 78)

- *magma bakes rocks it comes into contact with
- *changes not as drastic (usually only 100 meters deep)

hornfels – from shale, less drastic no foliations

Topic 23 “The Rock Cycle” (pages 78-79)

