

Physiographic Province	Geologic Region	Geologic Description	Age of Rocks	Major Rock Types	Major Mineral Resources
Appalachian Plateaus		Flat-lying to gently warped sedimentary rocks deposited in a west-facing alluvial plain during and after Appalachian mountain building.	Mississippian to Pennsylvanian	Sandstone, siltstone, shale	Coal, natural gas
Valley and Ridge		Passive-margin sedimentary sequence punctuated by orogenically induced clastic wedges. Later folded and thrust-faulted during Appalachian mountain building.	Cambrian to Mississippian	Limestone, dolostone, sandstone, shale, quartzite	Lime, cement, shale, barite, silica, gypsum, lead, zinc, pyrite
Blue Ridge		High-grade basement gneisses unconformably overlain by low- to medium-grade rift-related metasediments and metavolcanic rocks. Later uplifted and thrust-faulted during Appalachian mountain building.	Middle to Late Proterozoic	Granite, gneiss, greenstone, schist	Crushed stone, iron, pyrite, manganese, copper, feldspar, soapstone, titanium
Piedmont	Western Piedmont	Low- to medium-grade metasedimentary and igneous rocks formed in an elongate basin between the early Paleozoic margin of North America and an offshore volcanic island belt.	Early Paleozoic?	Phyllite, gabbro	Marble, slate, barite, vermiculite
	Central Piedmont	Chopawamsic Terrane: Low- to medium-grade metavolcanic, metasedimentary and igneous rocks formed in an offshore volcanic island arc. Later accreted to North America during Paleozoic orogenesis.	Cambrian-Ordovician	Granite, gneiss, schist, slate	Gold, copper, pyrite, crushed stone, slate, kyanite
		Milton Terrane: Medium- to high-grade metavolcanic and igneous rocks; of uncertain origin, possibly partly equivalent to the Carolina Terrane.	Paleozoic?	Granite, gneiss	Crushed stone
		Carolina Terrane: Low- to medium-grade, strongly deformed metasedimentary and metavolcanic rocks formed in a volcanic island arc, later accreted to the eastern margin of North America during Paleozoic orogenesis.	Cambrian	Slate, schist, quartzite	Slate, gold, copper, tungsten
	Eastern Piedmont	Raleigh Terrane: High-grade metasedimentary, metavolcanic and igneous rocks; high-grade metamorphic equivalents of Carolina Terrane rocks	Proterozoic	Granite, gneiss, amphibolite	Crushed stone, feldspar
Goochland Terrane: Very high-grade metavolcanic, metasedimentary, and igneous rocks; possibly a piece of ancient North American basement.		Proterozoic	Granite, gneiss, amphibolite	Crushed stone, feldspar	
		Roanoke Rapids Terrane: Low- to medium-grade metasedimentary, metavolcanic and igneous rocks	Proterozoic	Granite, gneiss, amphibolite	Crushed stone, feldspar
Mesozoic Basins		Gently- to moderately-dipping sedimentary rocks with basalt flows and coal. Deposited in rapidly-subsiding rift basins during the breakup of Pangea and the opening of the modern Atlantic Ocean.	Triassic-Jurassic	Sandstone, shale, basalt	Coal, crushed stone, barite
Coastal Plain		Flat-lying to gently east-dipping, largely unconsolidated sediments. The modern Atlantic passive margin sequence.	Cretaceous to Recent	Sand, gravel, clay	Sand, gravel, clay, heavy mineral sands (titanium)