

Lunar Geology

1. Find and list the names of 5 lunar mare on the Moon map.

2. List the landing sites for each Apollo moon landing


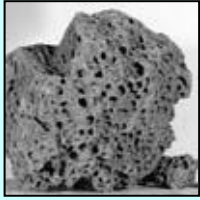

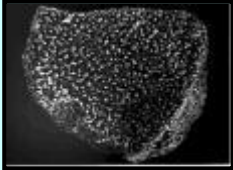
| Moon mission | Landing site |
|--------------|--------------|
| Apollo 11 | |
| Apollo 12 | |
| Apollo 14 | |
| Apollo 15 | |
| Apollo 16 | |
| Apollo 17 | |


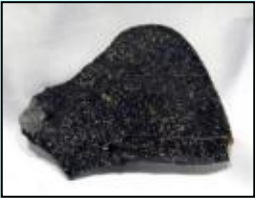
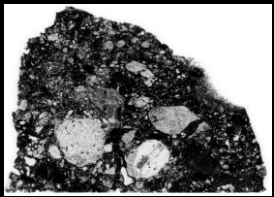

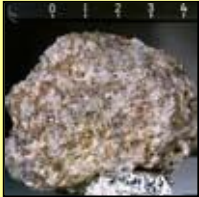
3. Compare the near side with the far side of the Moon. How are they the same? How are they different?

4. Why are all Apollo landing sites on the near side of the Moon?

5. Which rock, in the table below is commonly found in Earth's volcanoes?

Moon Rocks

| Rock | Composition | Description | Interesting information | Image |
|-------------|---|---|--|--|
| anorthosite | iron oxygen | coarse-grained igneous rock made largely of plagioclase feldspar (95%), with small amounts of pyroxene (4%), olivine, and iron oxides | discovered in the oldest Moon rocks | anorthosite found by Apollo 16 astronauts  |
| armalcolite | magnesium iron titanium oxygen | dark | named for the Apollo 11 astronauts, <i>Armstrong, Aldrin, and Collins</i> , and first discovered on the Moon at Tranquility Base | |
| basalt | plagioclase feldspar and pyroxene | fine grained gray to black volcanic rock | found in lunar mare | basalt found by Apollo 15 astronauts  |
| breccia | created from many kinds of rocks | sharp and angular fragments | rocks produced by the smashing, melting, and mixing of the lunar surface materials by large and small meteoric impacts | breccia found by Apollo 17 astronauts  |
| ilmenite | iron titanium oxygen | iron-black or steel-gray mineral found in metamorphic and plutonic igneous rocks | weakly magnetic |  |

| Rock | Composition | Description | Interesting information | Image |
|----------------------|---|---|---|---|
| norite | pyroxene and plagioclase | dark and coarse grained | found in lunar highlands |  |
| olivine | magnesium iron silicon oxygen | dark, greenish crystals | commonly found in basalt |  |
| plagioclase feldspar | | can be many different colors, but is often pink | an important component of igneous rocks |  |
| pyroxene | silicon aluminum oxygen iron magnesium calcium | dark and dense | commonly found in basalt |  |
| troctolite | olivine and plagioclase | depends on the amount of each | found in lunar highlands | troctolite found by Apollo 16 astronauts  |