VOLCANO NOTES CHAPTER 10-1 NAME _____

_____- areas on earth's surface where magma and volcanic gases pass through a vent or fissure

1. Origin of magma:
    a. All magma is made of liquid _____
    b. Can form by adding _____ (from friction + Earth's hot _____)
    c. Can form by _____melting – pressure is released as magma rises (pressure can force very hot liquid to act like a _____by restricting movement)
    d. Can form by adding _____to rock—lowers it's melting _____
2. Types of volcanism:
    a. _____volcanism- plate pull _____and lava fills the void
        i. If underwater, landform is an ocean _____
        ii. If on land, landform is a _____
    b. _____volcanism- plates subduct, melt, then _____form
        i. If underwater, volcanic _____arcs form
        ii. If on land, _____volcanic arcs form
    c. _____volcanism – hotspot in earth melts a hole in a _____plate and makes a volcano
        i. If underwater, an _____forms
        ii. If on land, a random _____forms

CHAPTER 10-2

1. Factors affecting _____:
    a. _____– high viscosity= _____lava and _____viscosity = thin lava
        i. Lava that is more viscous is more _____and doesn't flow as _____
        ii. Lava that is _____viscous is less explosive and flows a _____way

b. Dissolved _____
    i. Basaltic lava allows gases to escape making _____eruptions
    ii. Granitic lava _____gases from escaping so they build up and _____

2. Volcanic material:
    a. Lava
        i. _____- hotter, _____, faster moving basaltic lava-hardens _____
        ii. _____- cooler, thicker, _____moving basaltic lava-hardens _____
        iii. _____lava- when lava erupts _____forming rounded lumps
    b. gases
        i. volcanoes can emit _____of tons of gases each day
        ii. more gas = _____, especially with thick lava
        iii. less gas = more _____

    c. _____materials- solid fragments _____from a volcano (not _____) that appears as a dark _____ and races downhill at over _____km/ hour and _____degrees C
        i. _____- (less than ____mm) tiny _____shards that are microscopic and hundreds of degrees
        ii. Volcanic _____- (less than ___mm) gases in magma form bubbles, then the walls of the bubbles break into tiny, glasslike _____
        iii. _____- (less than _____ millimeters) sand sized to tennis ball-lava bits that harden while in the _____
        iv. volcanic _____- larger than 64 mm (baseball-to house sized) solid _____blasted out
        v. volcanic _____- larger than 64 mm (baseball-to house sized) lava blob that _____in the air

3. Volcano anatomy:
    a. _____- the first crack magma breaks through
    b. _____- opening at the top of a volcano
    c. magma _____- large blob of melted magma under the volcano
    d. _____- main pipe through which magma exits crater- rim around top of volcano

4. Types of volcanoes:
    a. _____-
        i. _____shaped volcano
        ii. built from layer upon layer of non-_____eruptions
        iii. thin _____lava
        iv. EXAMPLE: Mauna Kea in _____ (the tallest mt in the world)
    b. _____cone-
        i. _____volcano
        ii. built from pyroclastic _____eruptions
        iii. _____lava and big chunky rocks exit and don't move _____
        iv. relatively _____
        v. example: Paricutin in _____
    c. _____/ _____volcanoes-
        i. forms from _____explosive and non explosive eruptions
        ii. earth's most _____volcanoes
        iii. huge quantities of _____material
        iv. example: Mt. St. Helens in _____

5. Other volcanic landforms:
    a. _____- funnel shaped _____at the top of a volcano
    b. _____- large pit created when the magma chamber _____

c. Lava _____- wide, flat, raised landform that results from repeated non explosive _____
d. volcanic _____- rock formation made of core of volcano that is now _____

6. volcanic hazards:
    a. mudflows (_____),
    b. _____ flows,
    c. _____ flows,
    d. volcanic _____ -
        - blocks sunlight & affects _____ growth
        - blocks _____ and cools climate
        - destroy _____ supplies,
        - ash creates _____ difficulties
    e. volcanic gases- combine with water to make _____ rain
    f. _____ (if under water)

CHAPTER 10-3

1. _____-magma body that hardens underground (from Pluto God of the underworld)
    a. _____-flat magma flow between _____of sedimentary rock
    b. _____- _____magma flow between layers of sedimentary rock
    c. _____-flow of magma that moves upward and _____across sedimentary rock layers
    d. _____ - _____pluton; over 100 square kilometers

2. Volcano categories:
    a. _____- not erupted in recorded history and probably never will erupt
    b. _____- (_____) currently not erupting but probably will again
    c. _____- currently erupting or showing signs of erupting in the near future.

3. Predicting volcanoes
    a. _____ activity increases
    b. Surface starts _____ (gps monitors)
    c. Changes in the _____ of the gases that come out