10.1 Notes – Volcanoes

Factors Affecting Eruptions
• Factors that determine the ____________ of an eruption:
  1. ____________ of the magma
  2. ____________ of the magma
  3. ____________ in the magma
• ____________ is the measure of a material’s resistance to ________.
• Factors Affecting ____________:
  o ____________ (hotter magmas are less viscous)
  o ____________ (silica content)
    ▪ ________ silica – ________ viscosity (ex: ____________ lava)
    ▪ ________ silica – more ________ (ex: ____________ lava)
• Dissolved Gases
  o Mainly ____________ and ____________
  o Gases ________ near the surface and are released through ____________ in the Earth’s surface
  o Provide the ________ to ____________ lava
  o ____________ of an eruption is related to how easily gases ____________ from magma
    ▪ Gases escape ________ from ________ magma
    ▪ ________ magma produces a more ________ eruption

<table>
<thead>
<tr>
<th>Table 1 Magma Composition</th>
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<tbody>
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<td>Composition</td>
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<tr>
<td>Basaltic</td>
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<tr>
<td>Andesitic</td>
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<td>Rhyolitic</td>
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Volcanic Material
• ________ ________
  o ____________ lavas are more ________
  o Types of ________
    ▪ ____________ lava (resembles braids in ropes)
    ▪ _____ lava (rough, jagged blocks)
• ________ make up _____ to ____% of magma by ________
• ____________ Material
  o ____________ material is the name given to ____________ produced in volcanic eruptions.
The ______________ ejected during eruptions range in ______ from very fine ______ and volcanic _____ (less than ___ millimeters) to pieces that weigh several ______.

**Types of ______________ Material**
- _____ and ______ - fine, glassy fragments
- __________ - frothy, air-filled lava
- __________ - walnut-sized particles
- __________ - pea-sized particles
- __________ - hardened lava
- __________ - ejected as hot lava

**Types of Volcanoes**
- The ____ main types of volcanoes are __________ volcanoes, __________ ______, and ______________ cones.
- ______________ of a Volcano:
  - A ____________ formed of _______ and/or _______ material.
  - A _________ is the depression at the __________ of a volcano
  - A __________, or ________, carries gas-rich magma to the __________
- __________ Volcanoes
  - __________, __________ sloping volcanoes built from fluid __________ lavas. Ex: ______________
- __________ __________
  - __________ volcanoes built primarily of __________ material ejected from a single _________.
  - _________ slope angle
  - Rather _________ in size
  - Frequently occur in __________
  - Ex: ______________
- ______________ Cones
  - Composed of both _______ flows and __________ material.
  - Also known as ______________
  - Most are adjacent to the ______________ __________
  - _________ size
  - Interbedded _______ and ______________
  - Most _________ type of activity
  - Ex: ______________
Profiles of Volcanoes

Other Volcanic Landforms

- ____________
  - large ______________ in volcanoes
  - Nearly _____________
  - Formed by ____________
  - Size exceeds ___ kilometer in ______________

- Lava ____________
  - Fluid ______________ lava extruded from crustal ______________ called ______________