**Igneous Rocks Crossword**

**Across**
1. A coarse grained, light colored igneous rock.
5. Molten rock underground.
9. Salt water portion of the Earth that is mostly underlain by basalt rock.
11. Honest ___ Emancipation president, who freed the slaves.
12. Coarse grained igneous rock that solidified within the Earth. (Starts with “T”.)
15. Antonym of out.
16. Emory University. (Abbreviation)
17. A long time period.
   Also, constitutional amendment to give U.S. women rights equal to a man's.
18. Words and music together.
19. Dark colored, fine grained igneous rock extremely common in the ocean bottoms.
21. U.S. gun owner's group. (Abbreviation) Or, National Basketball Association (Abbrev.)
26. A mountain built by magma and lava.
27. Felsic igneous rocks with small crystals.
28. The crystals in an igneous rock will be small if the molten rock cooled ___ (Rapidly)
29. Ordered patterns of atoms and molecules are responsible for these mineral shapes.
30. Grand Turismo. (Abbreviation)

**Down**
1. Mafic (dark), coarse grained igneous rock.
2. By volume, the main thing in pumice.
3. Mafic means rich in magnesium and ___.
4. Volcanic rocks are ___ rocks. Opposite of 12 across. (Starts with “E”.)
5. The quantity of matter.
6. Serious. Also, a slab of rock to honor the dead.
7. How old someone or something is.
10. Ethnic Institute. (Abbreviation)
12. Prefix meaning “not”.
13. Hot English drink.
14. To make a mistake. “To ___ is human, to forgive is divine.”
15. Rock that was once molten.
18. Luminous heavenly body, like the sun.
19. Romantic island of the musical, “South Pacific”.
20. Flower of Easter. (Usually white)
22. Molten rock at the surface of the Earth.
23. Young horses.
25. To burn severely.
28. U.S. unit of measure, about ½ yard. (Abbrev.)

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**Igneous Rocks Identification Flow Chart**

**Is the rock crystalline, glassy, or frothy?**

- **Frothy**
  - **Glassy**
  - **Crystalline**

- **Mafic (Dark)**
  - **Basalt**
  - **Felsic (Light)**
    - **Rhyolite**
    - **Granite**

- **Coarse Grained**
  - **Gabbro**
    - **Peridotite** (Pyroxene & Olivine)
    - **Dunite** (Olivine)

- **Fine Grained**
  - **Obsidian**
  - **Scoria** (Big air pockets)
  - **Tuff** (Volcanic Ash)
  - **Pumice** (Floats)

**Igneous Rocks** usually contain intergrown crystals without layering.