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rocks. Some species live in extreme environments, such as deserts, hot springs, and glaciers. Although they were once classified as plants, the algae are now considered to be protists, with the exception of the **cyanobacteria**, formerly called blue-green algae. The algae do not form a distinct phylogenetic group, but the word *alga* serves as a convenient catch-all term for various photosynthetic protist phyla, including the **green algae**, **brown algae**, and **red algae**.

**algebra** (äl'jə-brə) A branch of mathematics in which symbols, usually letters of the alphabet, represent numbers or quantities and express general relationships that hold for all members of a specified set.

**algin** (äl'jin) A mucilaginous polysaccharide occurring in the cell walls of brown algae. Its derivatives are widely used as thickening, stabilizing, emulsifying, or suspending agents in industrial, pharmaceutical, and food products, such as ice cream.

**algorithm** (äl'gə-rith'əm) A finite set of unambiguous instructions performed in a prescribed sequence to achieve a goal, especially a mathematical rule or procedure used to compute a desired result. Algorithms are the basis for most computer programming.

**Alhazen** (äl-häz'ən) See **Ibn al-Haytham**.

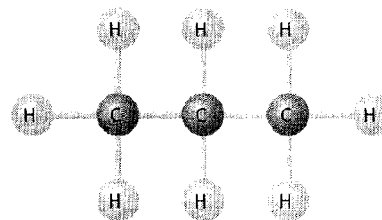
**aliasing** (ä'lē-ə-sīng) **1.** Jagged distortions in curves and diagonal lines in computer graphics caused by limited or diminished screen resolution. Compare **antialiasing**. **2.** Distortion in a reproduced sound wave caused by a low sampling rate during the recording of the sound signal as digital information.

**alien** (ä'lē-ən) Introduced to a region deliberately or accidentally by humans. Starlings, German cockroaches, and dandelions are species that are alien to North America but have become widely naturalized in the continent. Compare **endemic**, **indigenous**.

**alimentary canal** (äl'ə-mēn'tə-rē) The tube or passage of the digestive system through which food passes, nutrients are absorbed, and waste is eliminated. See also **digestive tract**.

**aliphatic** (äl'ə-fät'ik) Relating to organic compounds whose carbon atoms are linked in open chains, either straight or branched, rather than containing a benzene ring. Al-

kanes, alkenes, and alkynes are aliphatic compounds. Compare **aromatic**.



**aliphatic**

*a straight chain of carbon atoms of a propane molecule*

**alkali** (äl'kə-lī') Plural **alkalis** or **alkalies**. A hydroxide of an alkali metal. The aqueous solution of alkalis is bitter, slippery, caustic, and characteristically basic in reactions.

**alkali feldspar** Any of several feldspar minerals containing alkali metals and little calcium. Plagioclase, orthoclase and microcline are alkali feldspars.

**alkali metal** Any of a group of soft metallic elements that form alkali solutions when they combine with water. They include lithium, sodium, potassium, rubidium, cesium, and francium. Except for cesium, which has a gold sheen, alkali metals are white. The alkali metals have one electron in their outer shell, and therefore react easily with other elements and are found in nature only in compounds. See **Periodic Table**.

**alkaline** (äl'kə-līn, -līn') **1.** Capable of neutralizing an acid. Bases are alkaline. **2.** Relating to an alkali compound. **3a.** Having a pH greater than 7. **b.** Having a relatively low concentration of hydrogen ions.

**alkaline-earth metal** Any of a group of metallic elements that includes beryllium, magnesium, calcium, strontium, barium, and radium. Because the alkaline-earth metals have two electrons in their outer shell, they react easily with other elements and are found in nature only in compounds. See **Periodic Table**.

**alkaloid** (äl'kə-loid') Any of a large class of naturally occurring, complex organic compounds that contain nitrogen and have physiological effects on animals, including humans. Most alkaloids occur in plants, although some are produced by fungi and animals. Alkaloids are bases and usually form