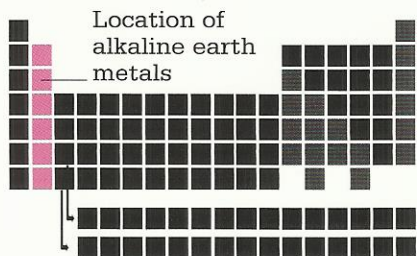


Alkaline earth metals [The



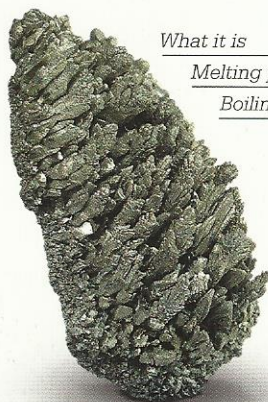
PERIODIC TABLE

The metals in this group are exceptionally light, yet strong, too, which is why they are often added to alloys. Although not as reactive as the alkali metals (pages 30–31), they combine easily with oxygen, forming minerals that are found in Earth’s crust.

12
Mg
MAGNESIUM

Magnesium

Superlight magnesium alloys are used to reduce weight in the engines of racing cars, fast jets, and rockets. Magnesium burns with a brilliant white flame. Once alight, it is nearly impossible to extinguish.



<i>What it is</i>	A silvery-white metal
<i>Melting point</i>	1,202°F (650°C)
<i>Boiling point</i>	1,994°F (1,090°C)

Magnesium crystals
Magnesium can be extracted from many minerals, and also from seawater.

38
Sr
STRONTIUM

Strontium

When exposed to the air, this silvery metal reacts with oxygen and quickly turns yellowish. Strontium burns with a bright red flame, and it is often used in fireworks.



Mayday!
The red flare of burning strontium is an internationally recognized distress signal.

<i>What it is</i>	A soft silvery metal
<i>Melting point</i>	1,431°F (777°C)
<i>Boiling point</i>	2,520°F (1,382°C)

88
Ra
RADIUM

Radium

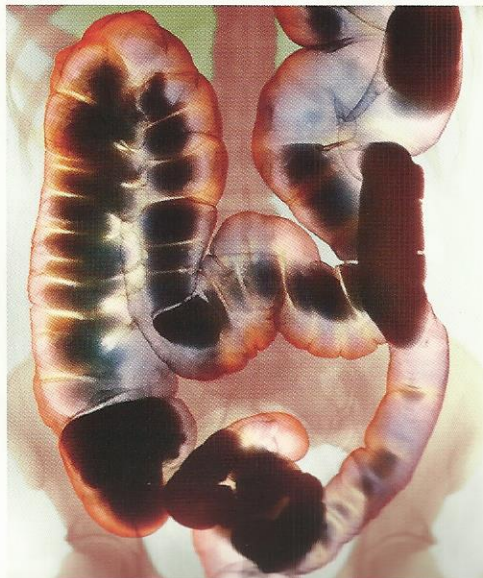
Radioactive radium was once used to make luminous paint for instrument dials and watch hands. It was thought to be good for the health and was even added to water and toothpaste—until people began dying of radiation-related illnesses.

<i>What it is</i>	A radioactive white metal
<i>Melting point</i>	1,292°F (700°C)
<i>Boiling point</i>	3,159°F (1,737°C)



Autunite
Radium occurs in tiny amounts in ores such as autunite and uraninite.

5th most common element in the oceans: **magnesium**



56
Ba
BARIUM

Barium

The compound barium sulfate—barium combined with sulfur and oxygen—is given to people with stomach disorders as a “barium meal.” Once swallowed, the barium shows up on X-ray photographs, allowing doctors to see what’s going on in the patient’s digestive system.

<i>What it is</i>	A silvery-gray metal
<i>Melting point</i>	1,341°F (727°C)
<i>Boiling point</i>	3,396°F (1,870°C)

Here’s looking at you!
A barium meal is used to look at your guts. The heavy barium blocks the path of X-rays, showing up as dark areas in this image.

7.7 tons
of ore is needed to produce just 0.035 oz. (1 g) of radium

Other alkaline earth metals: Calcium (Ca)