

# Minerals

## and metals

### PUNK ROCKS!

Our funky friend is covered in minerals:  
Eye shadow and blush: talc, mica,  
manganese violet, titanium dioxide

Lipstick and nail polish: mica, iron oxide,  
titanium dioxide

Face cream: zinc  
oxide, kaolin (clay)

Trumpet: copper and  
zinc (brass)

Jewelry: gold, nickel

iPod™: quartz, gold, silver,  
calcite, gypsum

### Mineral resources of Saskatchewan

• Base Metals  
(Copper, Zinc,  
Lead and Nickel)

• Gold  
• Iron  
• Uranium

### industrial

• Bentonite  
• Building Stone  
• Brines  
• Clays  
• Kaolin

• Potash  
• Salt  
• Silica Sands  
• Sodium Sulphate  
• Sylvite

### other

• Diamonds  
• Rare Earth Elements



### Science!

(A) mineral is a solid, inorganic material made of one substance, which occurs naturally on Earth. Most common minerals are made of crystals; those that are not are called amorphous solids.

There are over 2,000 minerals on Earth, but only 30 make up the majority of the rocks on Earth.

### Did You Know?

• Saskatchewan is the third-largest non-fuel, mineral-producing province in Canada.

• Gold is a great reflector of light and heat. The rocket engines of space shuttles are lined with gold alloys to reflect heat, and jet airplane windshields are coated in gold to reflect sunlight (just 28 grams of gold can cover 300 square metres of glass!).

• A "nickel" coin is actually made of cupronickel, an alloy of copper, nickel and impurities such as iron and manganese. "Copper" pennies are made mostly of zinc.

• Zinc is essential to our diet – we need it to repair wounds, to promote growth in children, to help cells reproduce and to boost immunity.

• Your home requires 180 kg of copper for electrical wiring, plumbing and appliances.

• Gold has been used in dentistry for almost 3,000 years. The Etruscans in the 7th century BC used gold wire to fix substitute teeth when their own were lost.

• Saskatchewan is Canada's sole producer of natural sodium sulphate, an ingredient in powdered laundry detergents. Sodium sulphate is also used to make paper.

• Copper was used to protect the hulls of Columbus' ships from bacteria.

• Saskatchewan's halite (salt) is mined for use on your table, to melt ice on your sidewalk and to regenerate your water softener.



### Keywords:

**Industrial Minerals:** geological materials that are mined for their commercial value.

**Alloy:** a mixture of two or more metals.



Saskatchewan Mining Association

Regina, Saskatchewan

saskmining@sasktel.net

www.saskmining.ca