

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

Smartphone: copper, gold, silver, aluminum, rare earths



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

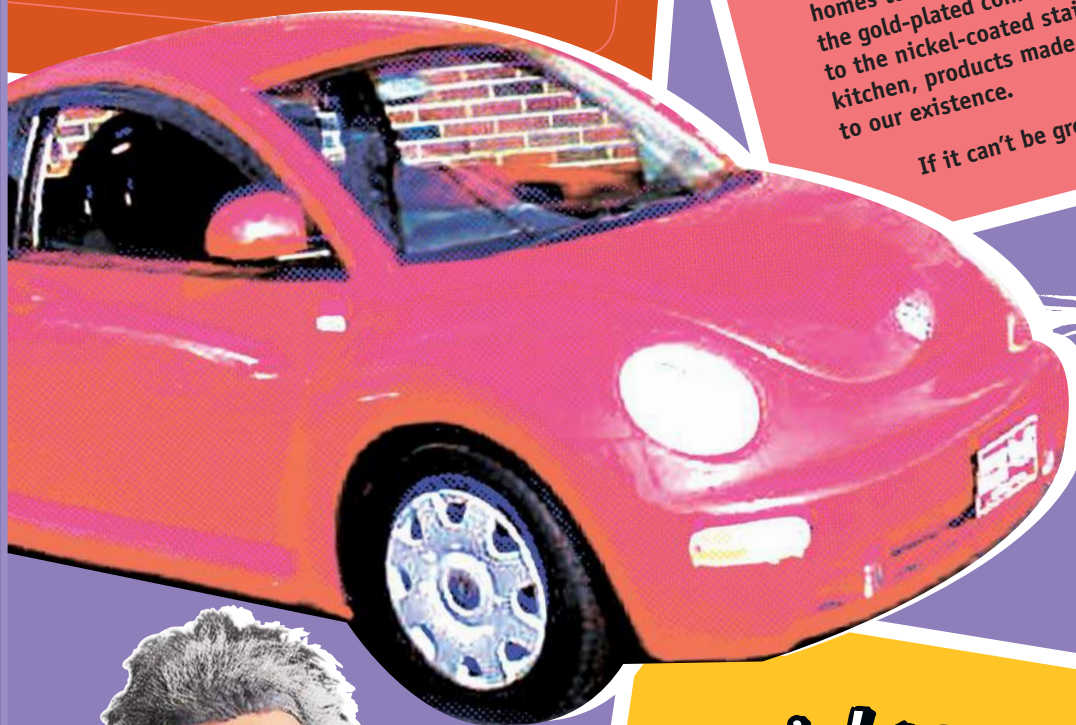
- Diamonds
- Rare Earth Elements

Why are minerals important?

Minerals are present in virtually every area of our lives – in fact, we literally could not live without them.

From the building materials that make up our homes to the building blocks of our diets, from the gold-plated connectors on video game consoles to the nickel-coated stainless steel knives in our kitchen, products made from minerals are essential to our existence.

If it can't be grown, it was probably mined!



Zinc makes cars last longer – about 7.7 kg of zinc protect it from rust. Each tire also contains about .22 kg of zinc, which is needed to cure rubber.

Did You Know?

- Saskatchewan is a leading 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!).
- Your smartphone is a pocket-sized vault of copper, aluminum and precious metals including gold, silver and palladium.
- There are 8 to 22 kgs of copper in the average car. Want to go with an electric vehicle? You'll need 83 kgs of copper.
- 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 one of the world's leaders in natural sodium sulphate production, ranking 5th in the world. Sodium sulphate is used to make paper and is also an ingredient in powdered laundry detergents.
- 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.

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.



Keywords:

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

Alloy: a mixture of two or more metals.



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