

Junior Explorers Challenge

ACTIVITY SHEET



From Mines to Meals: The Potash Connection

You've read the story of Saskatchewan's buried treasure. Now put your explorer skills to work! Complete three activities to discover how an ancient sea became a mineral resource that helps grow food around the world.

ACTIVITY 1 - How Did Potash Get There?

More than 350 million years ago, Saskatchewan looked very different. Number the events 1 to 5 to show how an ancient sea eventually became a potash deposit deep beneath the Prairies.

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Layers of sedimentary rock buried the mineral deposits deep underground.

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Seawater slowly evaporated under the hot Devonian sun.

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Saskatchewan was covered by a huge inland sea.

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Salt and potassium-rich minerals were left behind on the sea floor.

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Thick deposits of these minerals built up over time.

Explorer Question

What do geologists call an area where minerals are left behind when an ancient body of water evaporates?

ACTIVITY 2 - Solve the Underground Problem

Imagine you're an engineer helping to develop a Saskatchewan potash mine.

The Problem:

The potash deposit is more than 1,000 metres underground, beneath water-bearing rock. Water could enter the mine shaft and cause flooding. The story describes an ingenious solution engineers used to overcome this problem. What did they do?

My engineering solution:

How does it work?

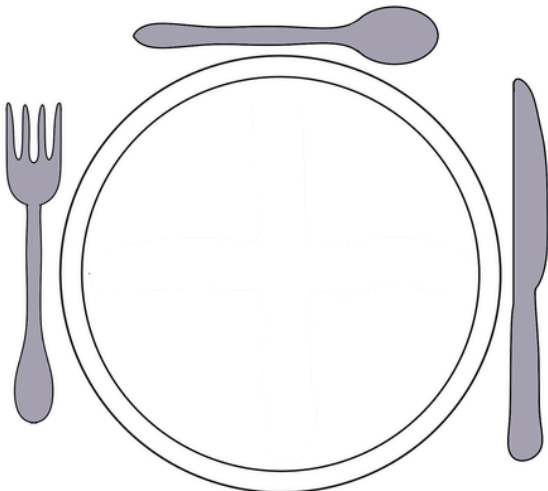
Explorer Question

Engineers also developed another way to recover potash by using water to dissolve underground salts and bring the mineral-rich solution to the surface.

What is this mining method called?

ACTIVITY 3 - From Mines to Meals

Choose one of your favourite foods and draw it on the plate below.



What is potash made into?



What does potash help grow?



Make the Connection

Explain how potash is connected to your favourite food.
