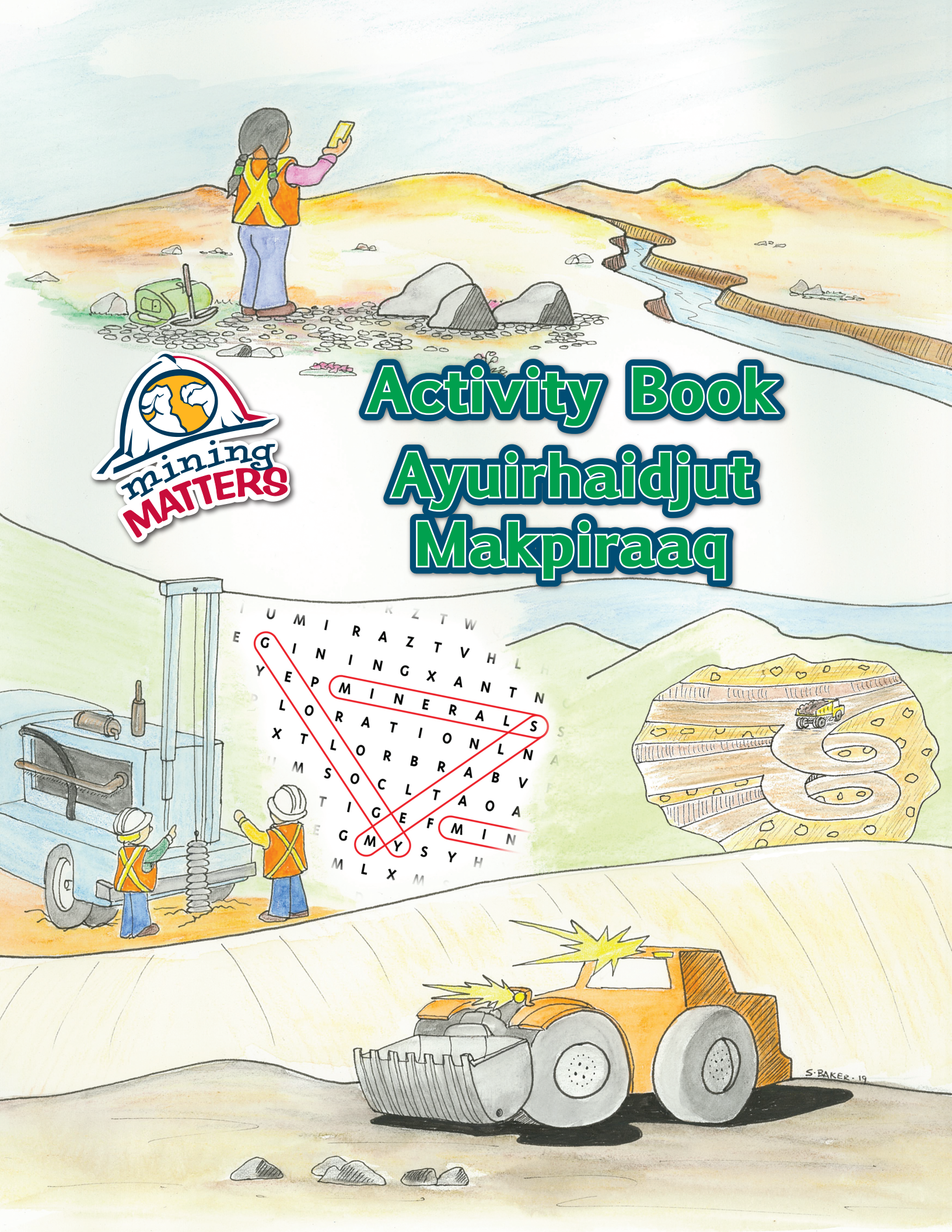

mining MATTERS
Activity Book
Ayuirhaidjut Makpiraaq
U M I R A Z T V H
G I N I N G X A N T N
Y E P M I N E R A L S
L O R A T I O N L N
X T L O R B R A B V
M S O C L T A O A
T I G E F M I N
G M Y S Y H
M L X M
S·BAKER·19

Mining Matters is a charitable organization dedicated to educating young people to develop knowledge and awareness of Earth sciences, the minerals industry, and their roles in society. The organization provides current information about rocks, minerals, metals, mining and the diverse career opportunities available in the minerals industry.

MiningMatters.ca

Charitable Registration Number 88775 6435 RR0001

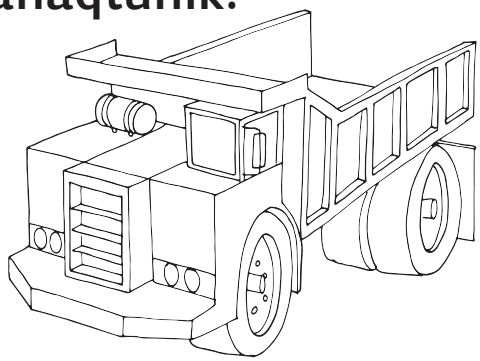
Printed in 2020

Activity Book

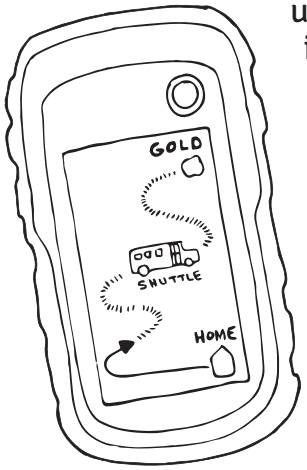
Ayuirhaidjut Makpiraaq

Grab your hard hat and get ready to dig into a mine load of fun!

Havakviup Nahanik atilutit algakniaravit uyarakhiurvikmi amigaittuq alianaqtunik!

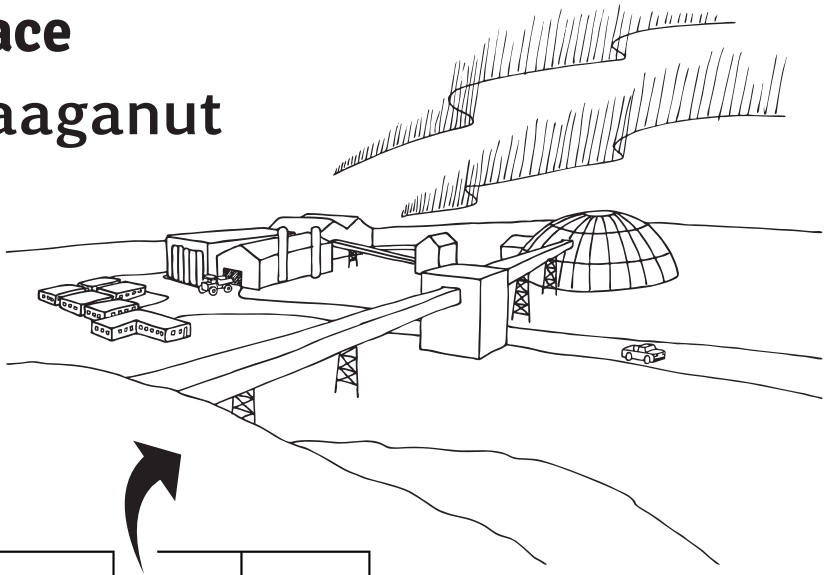


Packed with puzzles, the Mining Matters Activity Book includes codes to crack, things to spot, word searches, crosswords and more. Discover the three rock groups and the properties of minerals. Learn that rocks, metals and minerals are in the items you use everyday and explore exciting careers in the minerals industry. Discover why Mining Matters, and have fun doing it!



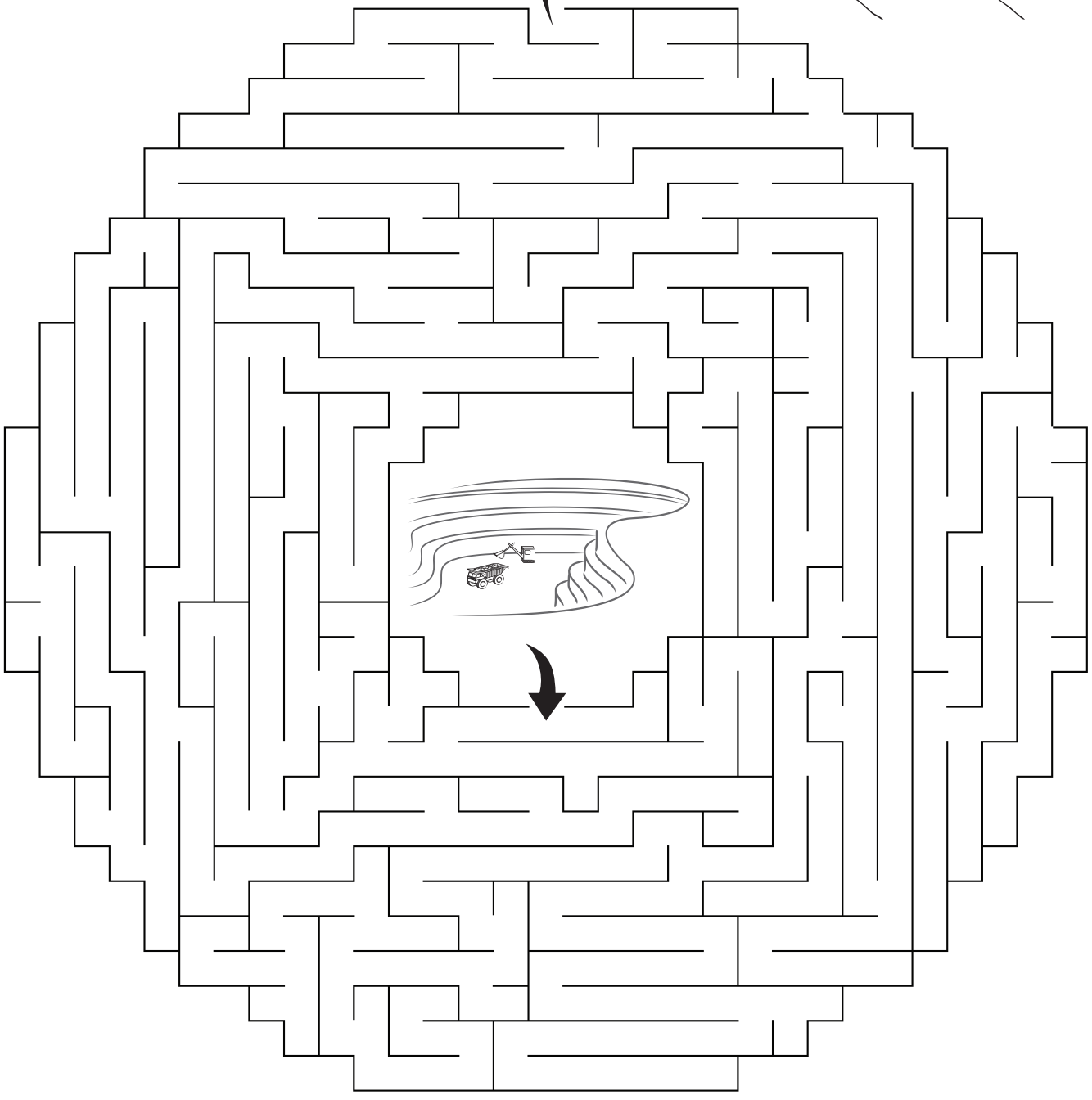
Amigaittuq iviqtitaanik, Uyarakhiurniq Akhuurutauyuq Ayuirhaidjut Makpiraaq piqaqtuq maliktakhanik, humik qinirhiayukhaq, tainiqmik qinirhiayukhaq, iviqtitaat titiraqhimayut iliuraqtakhat qiuqutinut amihuniklu. Naunaiyarlugu pingahut uyaqqat pihimaninngalu uyaqqat. Ayuirlugu uyaqqat, havigaliit uyaqqallu atuqtatit ubluq tamaat qinirlugulu quvianaqtut havaakhat uyarakhiurvikmi. Naunaiyarlugu huuq Uyarakhiurniq Piyuq, alianaqtumik pilutit!

Navigate to the Surface
Aqulutit Nunap Qaaganut



Help the mining truck driver haul the ore out of the surface mine and deliver it to the processing plant. Ore is a rock that contains a valuable metal or mineral.

Ikayuqlugu uyaraqtaunmik aqutuq akyariagani uyaraqtaanik nunap qaaganut akyaqlugilu uyaqiqivikmut. Uyaraktaat ukua uyaqat piqaqtut akituyunik havivaluknik uyaraktaaqhanikluniit.



Safety Dress Up
Aaniqnaitumik Aanuraaqtuqniq

Canada is a world leader in the mining industry. Safety is the industry's number one most important practice. Help Kallik get dressed for a day at the underground mine site in her Personal Protective Equipment (PPE).

Kanata hilaqyuami hivuliqhuqtuq uyaraktaqtini. Aanigitaagani havakviuyut hivuliq atuqluaqtauyut pigiarutimi. Ikayuqlugu Kallik aanuraaqturiagani ubluk nunap iluani uyaraktaqvikmi havagiagani Inmi Aaniriipkutinik Piqutinik (PPE) atuqluni.

Match the correct words with the safety equipment, and then match the equipment to Kallik.

Nalautilugit taijuhiuluaqtut aaniriipkutinik piqutinut, nalautilugilu piqutit Kallik-mut.

Safety Gloves
aniriipkutit pualuuk

Ear Muffs
hiutaiyariipkutik

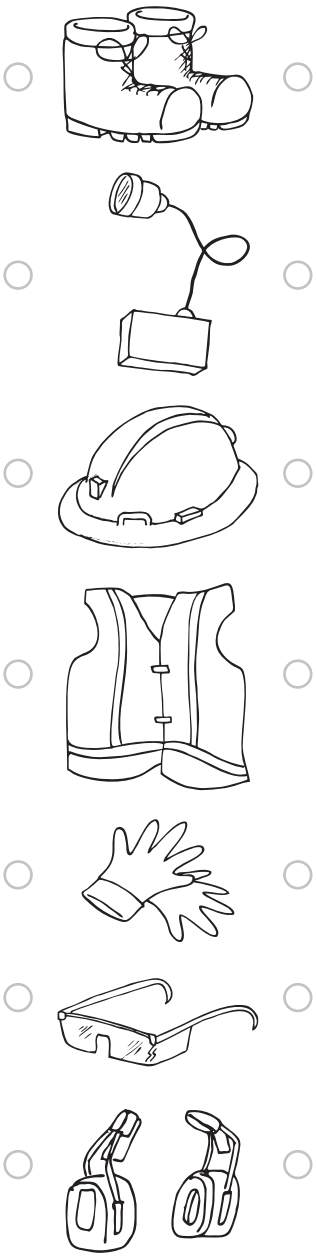
Hard Hat
hitiyuq nahaq

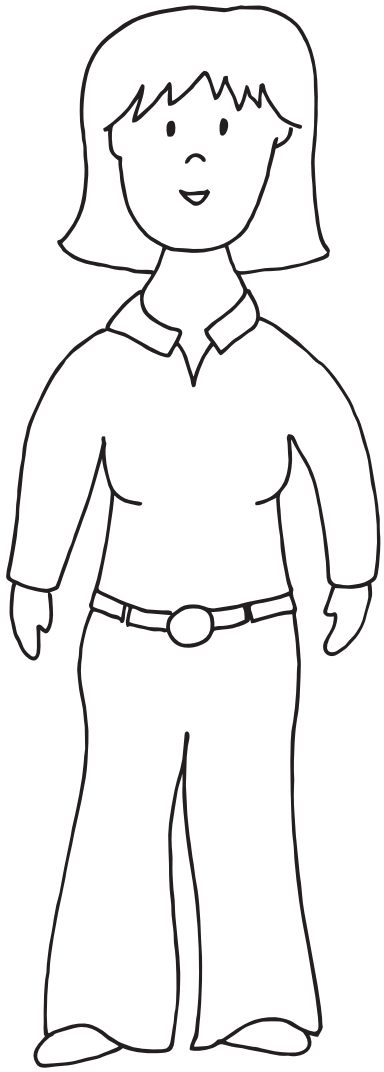
Head Lamp and Battery Pack
ahaqmi naniruut batuliiqaqviklu

Safety Glasses
aaniriipkutik ilgaak

Safety Boots
aaniriipkutik kammak

Safety Vest
aaniriipkulu puvailitaqtut ittuq

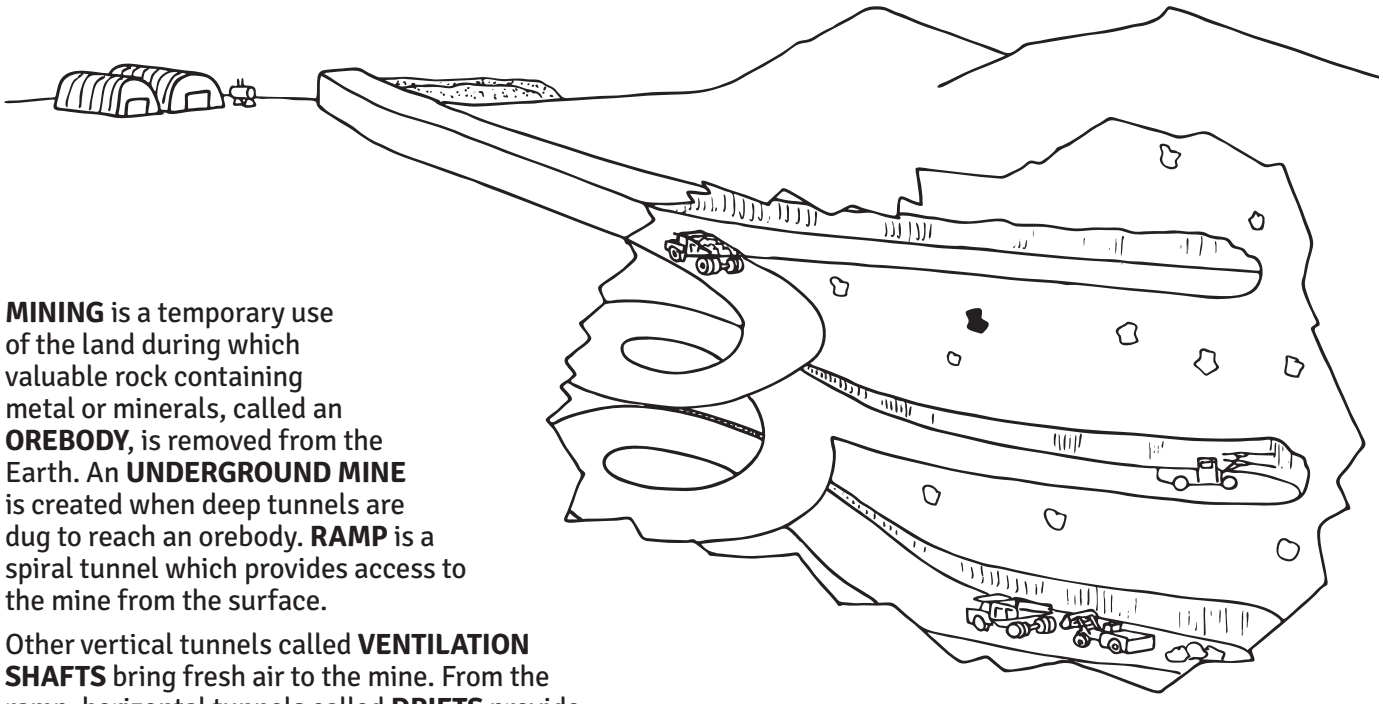




Underground Mining
Nunap ataani Uyarakhiurniq

Can you find the words associated with underground mining?
Words can be found in any direction.

Nanilaqiuk taijuhiq pijutiqaqtuq nunap iluani uyaraktaqniqmik?
Taijuhiuyut naniyaulaaqtut hanimut qunmutlu.



MINING is a temporary use of the land during which valuable rock containing metal or minerals, called an **OREBODY**, is removed from the Earth. An **UNDERGROUND MINE** is created when deep tunnels are dug to reach an orebody. **RAMP** is a spiral tunnel which provides access to the mine from the surface.

Other vertical tunnels called **VENTILATION SHAFTS** bring fresh air to the mine. From the ramp, horizontal tunnels called **DRIFTS** provide access to the orebody. **EXPLOSIVES** break up the rock so it can be picked up by a low, narrow truck with a bucket up front, called a **SCOOPTRAM**. It is driven to the shaft and the ore is dumped into the skip, which brings it to the surface.

UYARAKHIURNIQ is tadjakaffuk atuqtuq nunanganik talvani ihariagiyauyut uyaqqat piqaqtut havigalik uyaqqatluuniit, taiyauyut **OREBODY-MIK**, piiqtauyut Nunamit. **NUNAP ATAANI UYARAKHIURVINGIT** piliurhimayuq taimaa ilurhaqyuanik algaktauyut tikiutigiami orebody-mik. **IKAARVIUYUQ** kaimalluriktuq algaktauhimayut piinarialqigiami uyarakhiurvingit qaanganit.

Aadlat napangayut algaktauhimayut taiyauyut **ANIAVIQAQTUQ ALGAKHIMAYUT** halumayumik anirhaavikhamik uyarakhiuvinganut. Ikaarviuvikmit, nalruyuq algaktauhimayut taiyauyut **PUPTALLAAQTUQ** tuniyuq piinarialaqigiami orebody-mut. **QARAQTAUTIT** ahiruqtiqtait uyarak agyaqtaugiami mikiumit, tuattuq akhaluut qalurautilikmik hivun'nganni, taiyauyut a **QALURAUT**. Agyaqtauyuq algaktauyumit ore-ngalu kuviyauyuq iliuraqvinganut, aggidjauyuq qaanganut.

J M F R Z Z G O A I V Y
D P A M A N S R P E H D
N G W R I M X F N J M O
U I Z N T E P T Y P I B
O M I O S P I F D O E E
R M R O W L O S R N P R
G C S O A D S O I A J O
R G Y T A C C M C C G V
E S I D R I F T S S S X
D O S E V I S O L P X E
N F X E U G V N V M N N
U Y F U H R X C J T V Z

WORD BANK

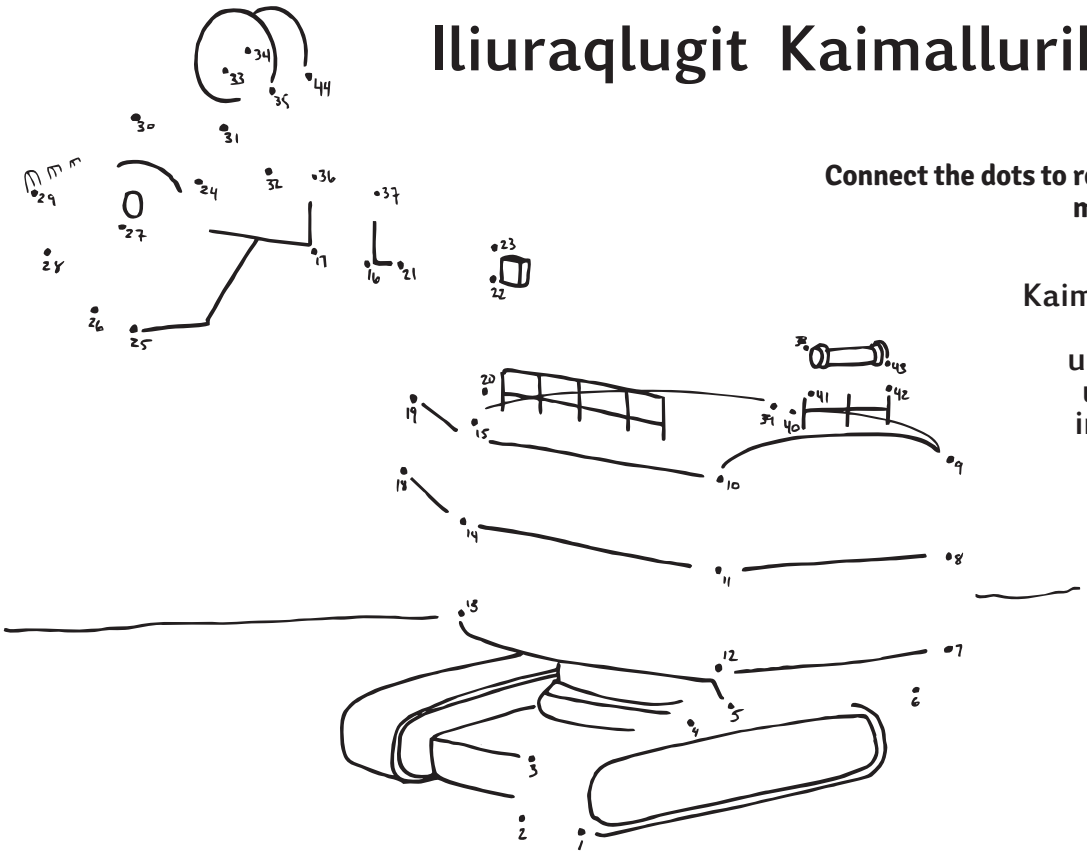
MINING
OREBODY
UNDERGROUND
MINE
RAMP
VENTILATION
DRIFTS
EXPLOSIVES
SCOOPTRAM

Connect the Dots

Iliuraqlugit Kaimalluriktunnuat

Connect the dots to reveal this piece of mining equipment.

Iliuraqlugit Kaimalluriktunnuat tautugiaqni una atuqtauyuq uyarakhiurviup ingilrutinginnik.

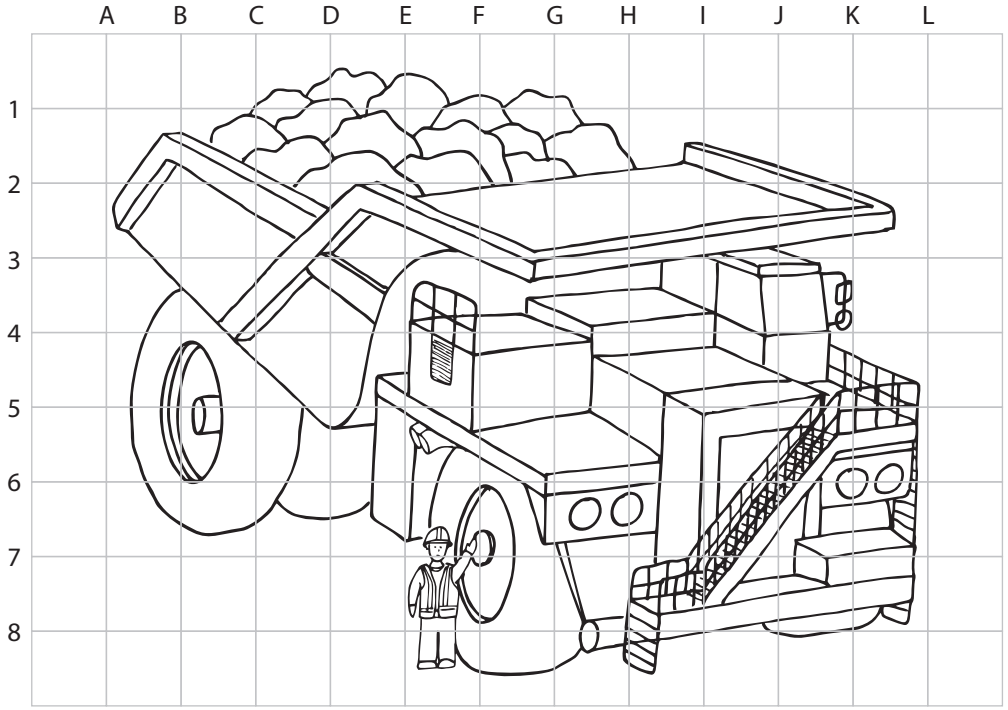


Draw the Mining Truck

Titigauyaqlugu Uyaraktaut Akhaluut

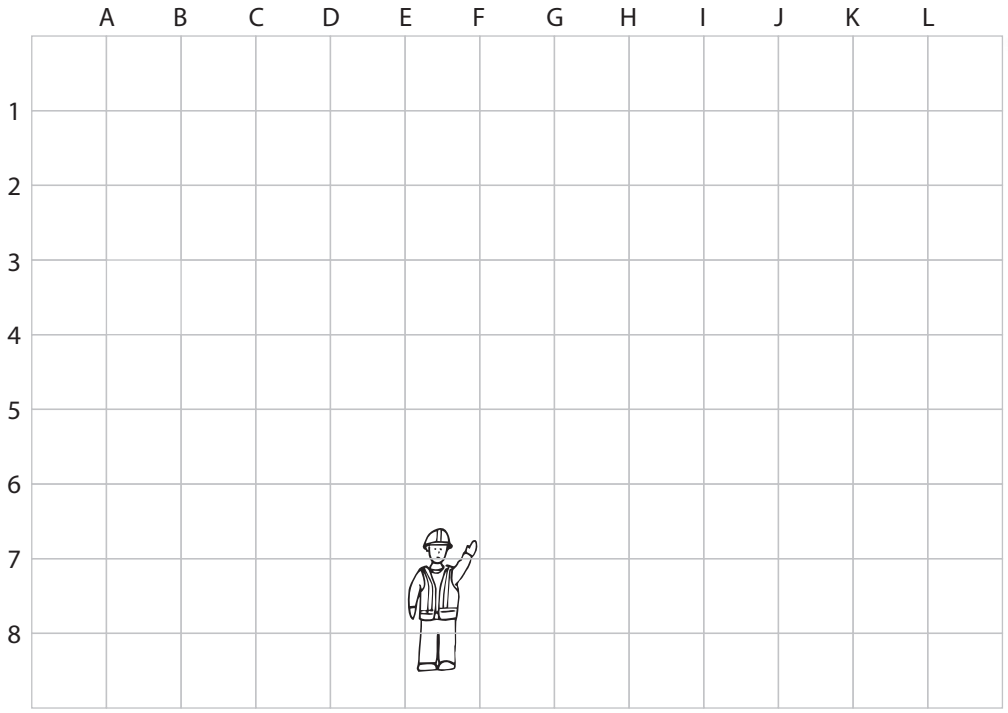
Mining trucks can hold up to 450 tonnes of ore. That is approximately the weight of 250 cars! The tires can be up to 3.5 metres tall. It takes a lot of power to move these trucks. The wheels are so big that there is a motor for each one.

Uyaraktautit akhaluutit uhilaaqtut 450-tons-nik uyaraktaanik. Una uqumainivya 250 akhalutinuit! Akhaluagit 3-mit 5-miitamut kigiknigit. Igniqutiqatiariaqaqtut aulajagiagani pigahuut akhaluutit. Akhaluagit agikyuaramik igniqutiqaqtuut atuni akhaluat.



Draw and colour the mining truck using the grid below.

Titirauyaqlugu kalalugulu uyaraktaut akhaluut atuqlugu titirauyaqvikhaq ataani hafuma.

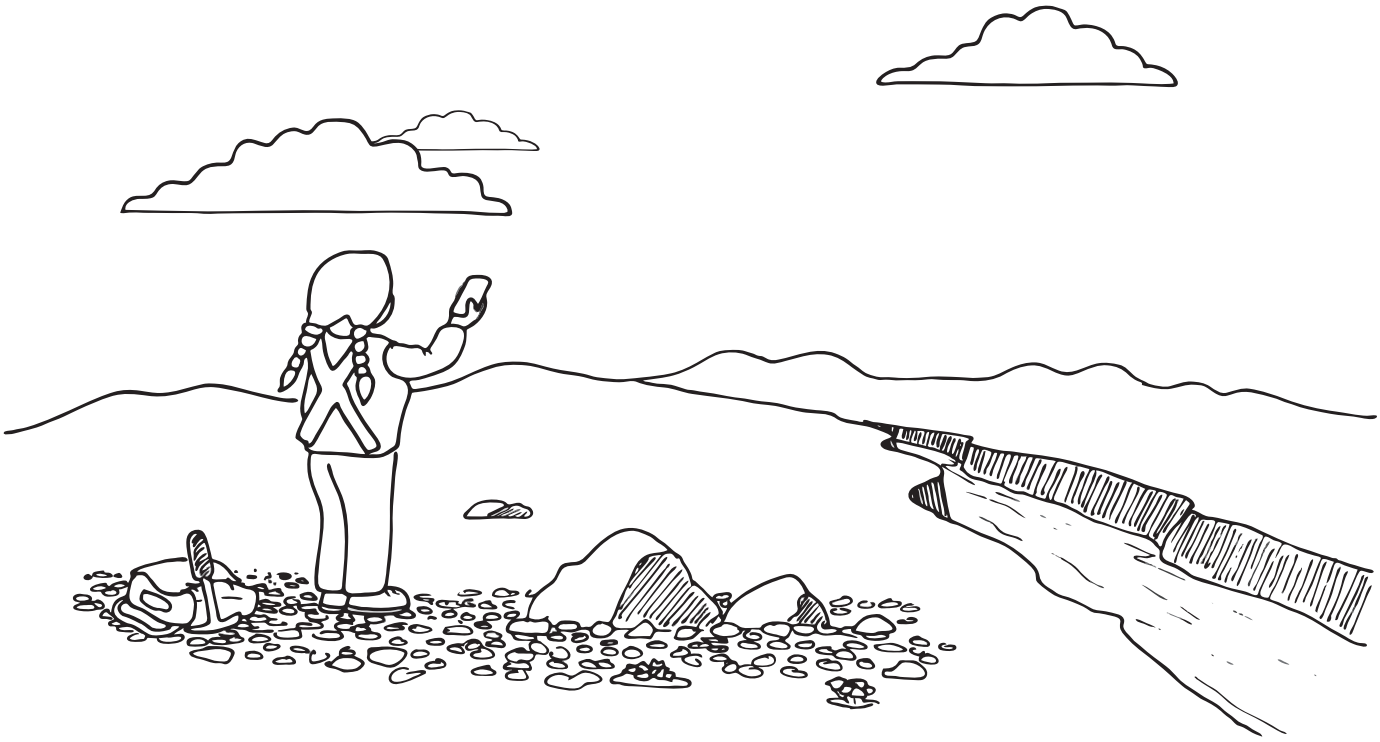


Pakak the Prospector

Pakak Uyarakhiuyuktuq

Pakak is an observant lady. She recently took a prospector course and obtained a prospector license. Learn about Pakak's job as a prospector by filling in the blanks with the correct words from the word bank.

Pakak qun'ngiaqtuayuktuq arnaq. Uyarakhiurniqmut ayuirhaqtuq tuniyaupluni Uyarakhiurniqmut laisinganik. Ayuirhaqlutit Pakaup havaanga uyarakhiurniqmik titiraqlugit titiraqhimangittut ukuninnga ihuatqiat tainiit tainiit iliuraqhimayumit.



WORD BANK

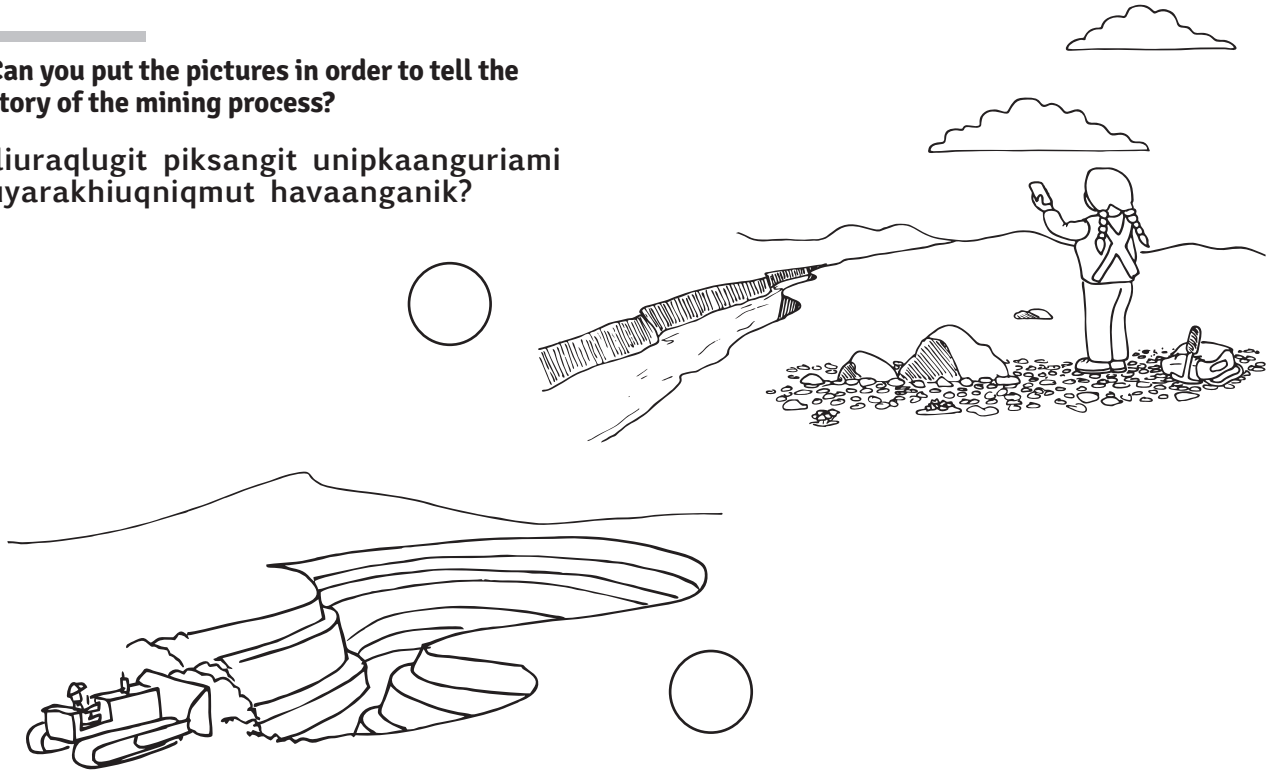
ADVENTURE	GOLD	SAFETY GLOVES
DETECTIVE	GPS	TUNDRA
EARTH	ROCK HAMMER	

As a prospector, Pakak explores different regions of the _____ , acting as a _____, trying to discover valuable mineral deposits such as copper, _____, or even diamonds. She uses her_____ to help find her way on the _____.
She uses her_____ to break rock to collect samples. Pakak always wears her safety boots, safety glasses and_____ to protect her from nature's elements.
A day in the life of Pakak the Prospector is always an_____!

The Mining Process
Uyarakhiurniq Havaanga

Can you put the pictures in order to tell the story of the mining process?

Iliuraqlugit piksangit unipkaanguriami uyarakhiuqniqmut havaanganik?



A **LOOKING FOR MINERALS** Geologists do field work to identify different rocks, study satellite images of Earth and use airplanes or helicopters to measure things, such as magnetism in the underlying rocks. | QINIRHIAYUQ FUYAQQATLUUNIIT Ihivriuqtiuyuq maniqqami havaktut ilitarigiamiknik aadlatqiinik uyaqqanik, naunaiyarlugu saatalaitmit piksangit Nunaptiknik aturhutiklu tingmitinik halikaaptanikluuniit naunaiyariamiknik, ukunatitut havigaliknik ataani uyaqqanit.

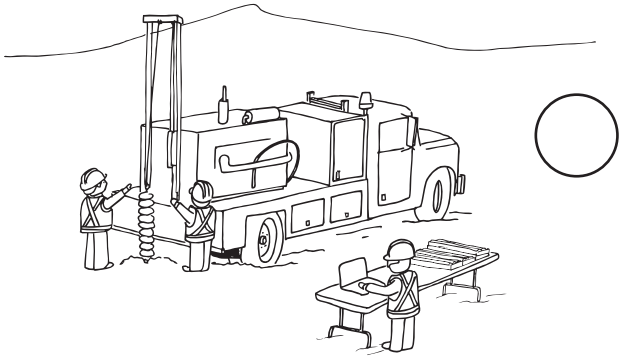
B **EVALUATING A MINERAL DISCOVERY** The company drills holes in the ground to take out long, thin cylinders of rock called cores, which can be studied to find out how much valuable mineral they contain. The company determines how much it will cost to construct and operate the mine, to sell the minerals, to take care of the environment, and whether or not the company will make any money. | NAUNAIYAQTUQ UYAQQANIK PAQITTUT Uyarakhiurvinga ikuutaqpaktut nunammit piiyarhugit takiyunik, tuattut kaimalluriktumit uyaqqanik taiyauyut uuktuutinik, naunaiyaqtait naunaiyariami qaanuraaluktut ihariagiyauyuq uyaqqanik piqaqtut. Uyarakhiurvinga naunaiyaqtait qanuraaluktut akiqarniaqtuq piliuriami aulapkaigiami uyarakhiurvingit, niuvrutigiami uyaqqanik, munarigiami avatinga, taimaaluuniit Uyarakhiurvinga maniliurniarumi.

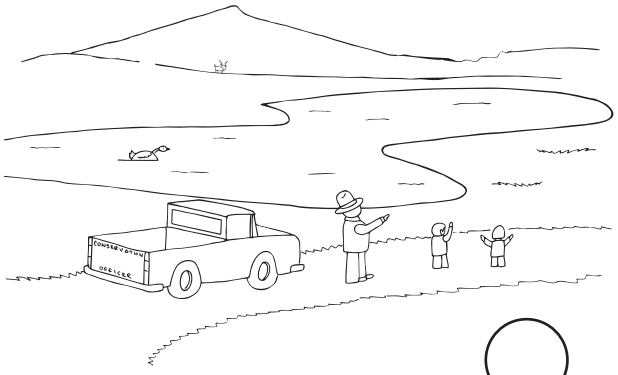
C **BUILDING A MINE** Huge diggers scrape away the surface material and explosives are used to blast the solid rock to reach the valuable minerals located close to the surface, or tunnels are dug into the Earth to reach valuable minerals buried deep below the surface. Roads, mineral processing plants, employee housing and offices are also constructed. | UYARAKHIURVILIUQTUT Angiyut algagutit piiyaqtait qaanga qaraqtautiniklu atuqtauyuq ahiruqtiriami naptuyuq uyarak pigiamikni ihariagiyauyut uyaqqat ittut haniani qaanganit, algaktauhimayut algaktauyut Nunamut pigiamiknik ihariagiyauyut uyaqqat hauhimayut ataaniraaluk ataanit qaanganit. Apqutit, uyaqqat havakvinga, havaktut nayurvingit havakvingillu nappaktauyut.

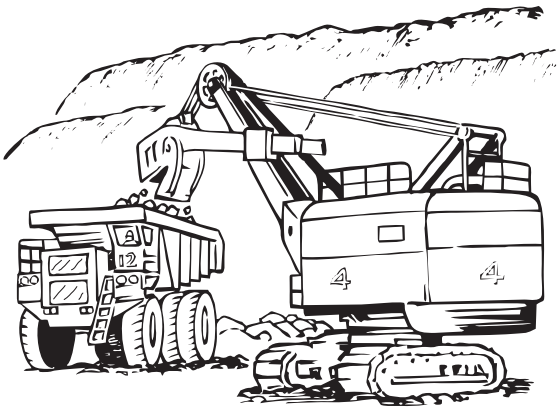
D **MINING AND PROCESSING MINERALS** Miners use drills and explosives to break up the rock. Large scoops and machines move the rock to the processing plant where it is crushed into a fine powder and valuable minerals are separated from the waste rock. | UYARAKHIURNIQ HAVAKTAINNIK UYAQQAT Uyarakhiurviuyut atuqtut ikuutaqmik qaraqtautiniklu ahiruqtiriami uyaqqanik. Angiyut qalurautit akhaluutiniklu agyaqtait uyaqqat havakvikmut ahiruqtauyut mikhipkaqpiaqhugit ihariagiyauyut uyaqqat ahinunngaqhugit iqqakuuyunit uyaqqanit.

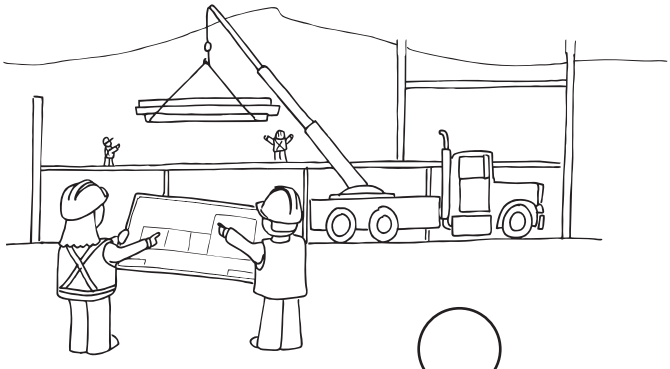
E **CLOSING THE MINE** Buildings are removed, pits and tunnels are made safe, the environment is protected from mine waste, and the land is replanted. | UMILIQTAAT UYARAKHIURVINGIT Igluqpingit piiqtauyut, ilurhangillu algaktauhimayut qayangnaipkarhugit, avatinga pipkaiqtaungittut uyarakhiurvingit iqqakunit, nunangalu ihuarhaqtauplugu.

F **RECLAIMING THE LAND** The land is made safe, usable and a natural part of the surrounding environment. | IHUARHAFFAALIQTAIT NUNANNGA Nunannga qayangnaiqtauyuq, atuffaaqtakhaq ilagiyangalu avatinganit.





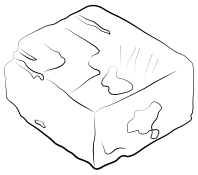




Mineral Properties
Uyaraktaakhat Qanurinigit

Geologists use a number of tests to determine the physical properties of minerals. Those properties help to identify the mineral.

Nunaliqiyit atuqpaktut aalatqiinik naunaiyautinik qanuriniginik uyaraktaakhat. Ukua qanurinigit ikayuutauyut naunairiagani uyaraktaakhaq.



Can you fit the following seven physical properties into the crossword? Give it a try!

Inikhainugaqniaraluaqigit ukua saivauyut (7) qanuriniginik taujuhiliqijunmi? Uukturiaruuk!

WORD BANK

COLOUR
CONDUCTIVITY
CRYSTAL STRUCTURE
HARDNESS
LUSTRE
MAGNETISM
STREAK

COLOUR is a property commonly used to describe minerals, but it is not a very good one to use to identify them because many minerals come in a variety of colours. | KALAA qanuriniganik atuqtauqataqtuq uqauhiriyaagani uyaraktaakhat, kihiani nakuvalaagituq aturiagani naunaiyautini amigaitut uyaraktaakhat aalatqiikmata kalait.

CONDUCTIVITY is the property that allows a mineral to conduct electricity. | QUAQHALAQNAQTUQ qanuriniga pipkailaaq uyaraktaakhamik aulavigiyaagani quaqhalaqnaqniganik alruyaqtuutinit.

CRYSTAL STRUCTURE is the property of a unique arrangement of atoms, ions or molecules in a mineral. When minerals have the time and space to "grow" or crystallize, they can develop regular shapes and patterns because of crystal structure. | ILAALIKTUT QANURINIGA una ajikutaqagitunik ihuaqhaqnigit iikni takuyaulimagitut Atoms-guyut, ions-guyut, molecules-lu uyaraktaakhami. Uyaraktaakhat pivikhaqaraagamik inikhaqarumiklu "agiklivaliayagani" uyaraguqtiriamiluniit, piqalaaqtut ajikiini qanurinitinik uyaraguqtikniganit atautimiuyut.

HARDNESS is the property that allows a mineral to resist being scratched. | HITINIGATA qanuriniga pipkaiyuq uyaraktaakhamik maniiyariami pilimagituq.

LUSTRE is the property that indicates how much the surface of a mineral reflects light. | QIPLIQNIGA qanuriniga naunairutauyut qaaga uyaraktaakhap qipliqtaqniga qaumaniqmi.

MAGNETISM is the property that allows a mineral to attract or repel other magnetic materials. | NIPITQAQTAQNIGA qanuriniga pipkaiyuq uyagaktaakhamik nipitqaqtariagani tayaqluguluniit nipitqaqtauhiini.

STREAK is the property of colour when a mineral is in powdered form. | STREAK iguyuq qanuriniga kalaata uyaraktaakhaq hiuraliaguraagat.

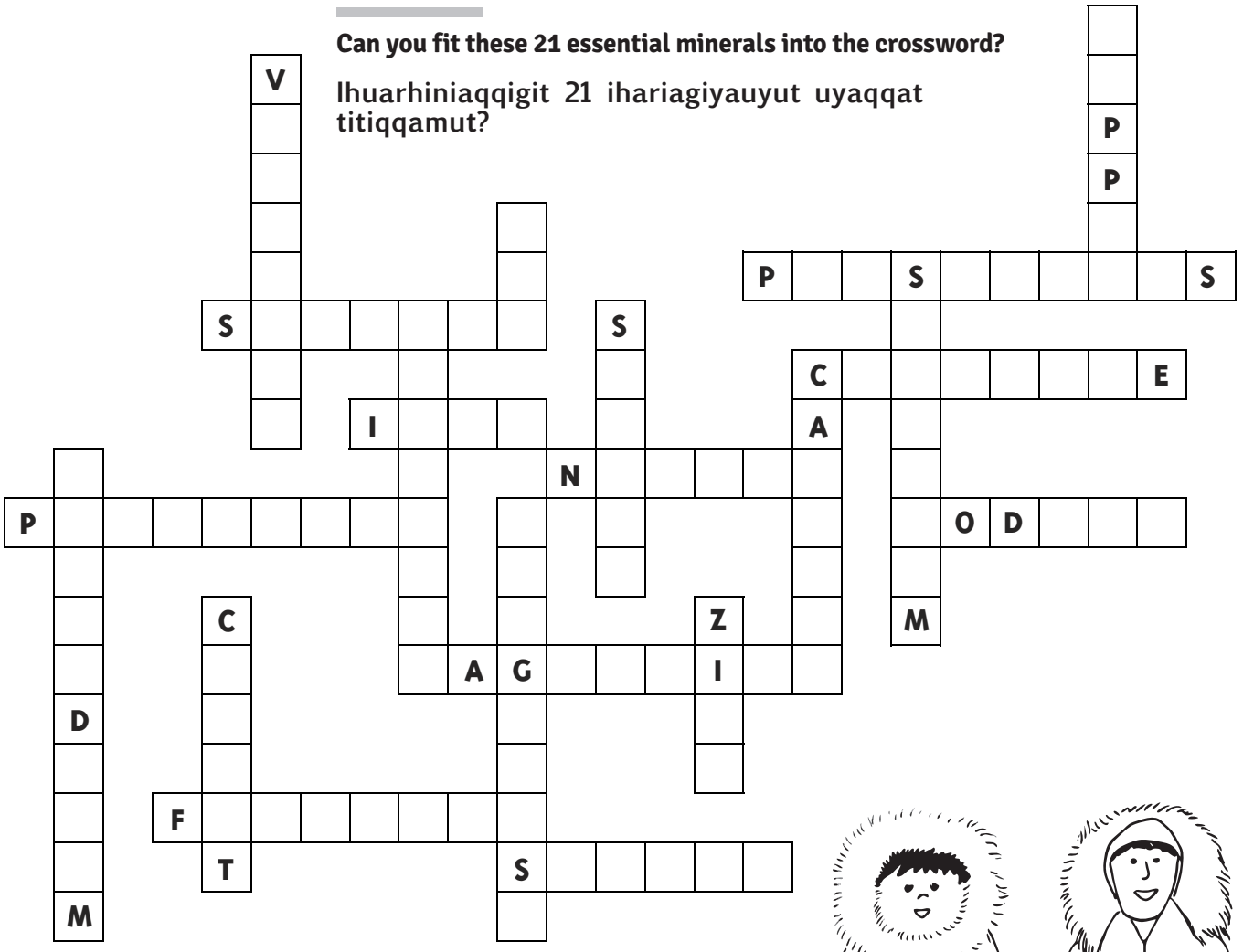
Minerals for our Bodies
Uyaqqat Timiptiknut

There are 21 essential minerals that our bodies need to live active and healthy lives. The essential minerals in our bodies are the same elements that we mine out of the Earth and are also found in fruits, meats, vegetables, milk and vitamins.

Piqaqtuq 21 ihariagiyauyut uyaqqat timivut ihariagiyainnik inuugiami hulilukaaqtumik aaniangittumiklu inuugiaptikni. Ihariagiyauyut uyaqqat timiptikni aadjikutariyait uyarakhiuqtaptiknik Nunamit takunnaqtullu ahiani, uuyuni, nauhimayunit, milukmi vaitimanilu.

Can you fit these 21 essential minerals into the crossword?

Ihuarhiniaqqigit 21 ihariagiyauyut uyaqqat titiqqamut?



WORD BANK

CALCIUM	IRON	SELENIUM
CHLORIDE	MAGNESIUM	SILICON
CHROMIUM	MANGANESE	SODIUM
COBALT	MOLYBDENUM	SULFUR
COPPER	NICKEL	TIN
FLUORIDE	PHOSPHORUS	VANADIUM
IODINE	POTASSIUM	ZINC

Product Matching
Hunavaluknik Aadjikutariyait

Everything in our world that isn't grown is made using rocks, minerals, metals and petroleum resources that are extracted from the Earth. We use rocks, minerals, metals and petroleum to build homes, electronics, and schools, to generate heat and power, and to make everyday comfort items like shampoo and toothpaste.

Tamaita nunaptikni nauhimangittut atuqtauyut uyaqqanit rocks, uyaqqat, havigalik urhuryuanillu piiqtauyuq Nunamit. Atuqtugut uyaqqanik, uyaqqat, havigalik urhuryuaniklu nappariami iglut, alruyaqtuqtut sikuurviillu, uunaqutiqariami pauwaqariamilu, piliuriamiu atuinnaqtaptiknik nuyarmut uarutit kigutigakhamiklu.

MICA
Ground mica is a mineral used in wallpaper, paint, cosmetics, tiles and roofing – tiny flecks of mica give a sparkling effect.

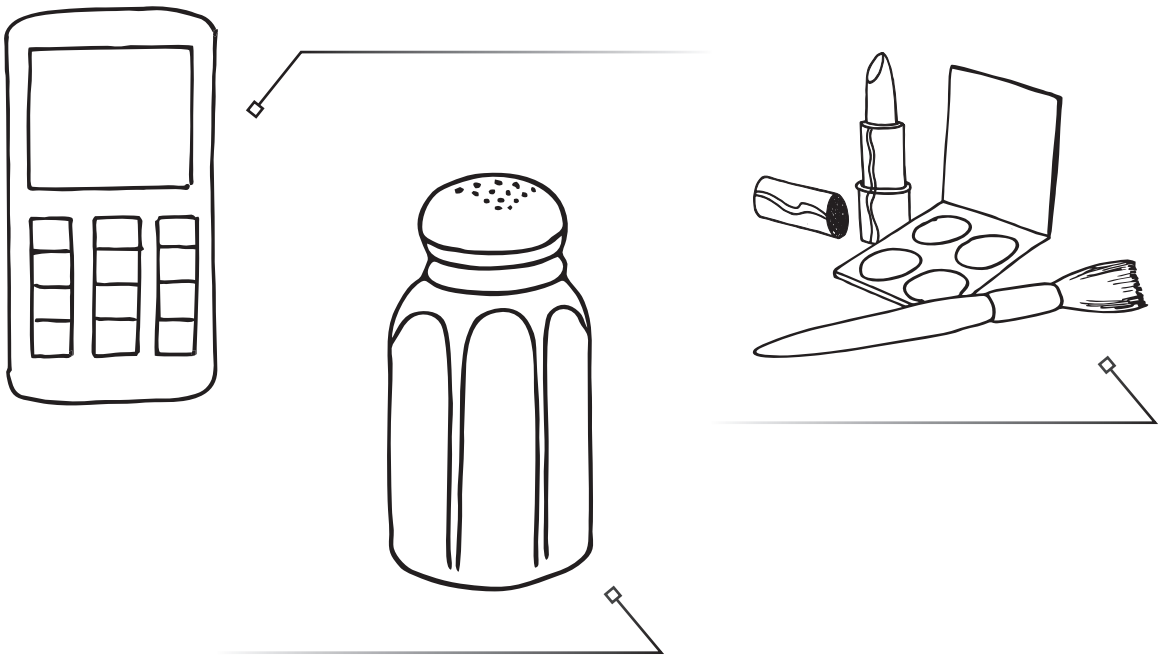
Nunamit mica uyarauyuq atuqtauyuq iglup haniraanut, minguut, arnat atuqtakhanganik, natikhamut iglup qaanganullu – mikkanuat mica-mik qiplarutivaktuq.

HALITE
Halite is a mineral that adds flavour to food, melts ice on roads and is also used in the manufacture of glass, fire extinguishers, paint, plastics, synthetic rubbers and cosmetics.

Halite uyarauyuq mamaqutiyauyuq niqinut, mahaktiqhugulu hiku apqutini atuqtauyuq igalaaliurniqmut, qaptirutinik, minguutinik, palaastinik, kalikuniklu ulapanut arnat atuqtakhaniklu.

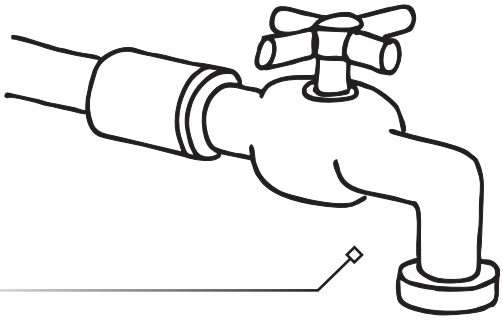
CHALCOPYRITE
Chalcopyrite is a mineral containing copper. Copper is used in electrical wires, plumbing, coins and kitchen appliances, to name a few.

Chalcopyrite uyarauyuq piqaqtuq kannuyamik. Kannuyaq atuqtauyuq alruyanut turhuanut, kannuyanik igavikmilu atuqtanganik, titiraqtuq naunaiariami mikiumik.



Which mineral or rock is found in these everyday products?

KItut uyaqqat uyaralluuniit takunnaqqa atuinnaqtaptiknik?



GOLD | GOLD-mik
Gold is a mineral that is easily shaped and conducts electricity. It is mostly used in jewelry, electronics, dentistry, and medals.

Gold uyarauyuq ayurnaittumik pauwaqtuutigiyauyuq. Atuqtaulluanginnaqtut pinniqutini, alruyaqtuqtuni, kiguhiqiitkunni, aittuutillu.

CALCITE
Calcite is a mineral used in the manufacture of fertilizers, metals, glass, rubber, paint and cement. We also use it to help keep our teeth clean.

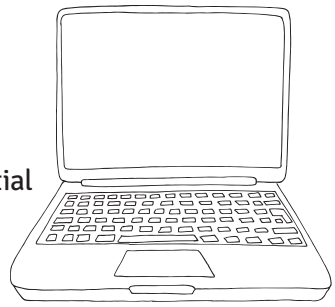
Calcite uyarauyuq atuqtauyuq piliuriami nunamut nauhimaqaqtunik, havigalik, hikuliaq, ulapamut, minguut naptuyumiklu pihukvikmut. Atuqtavullu kigutikmut halumariami it.

SPHALERITE
Sphalerite is a mineral containing zinc. Zinc is used to coat steel to prevent corrosion and is found in many common products including batteries, medicines, insect repellent and sunscreen.

Sphalerite uyarauyuq piqaqtuq zinc-mik. Zinc atuqtauyuq iliurariami havigaliknut qattinnaitkutigiami takunnaqtullu amihunik hunavaluit paatuliimilu, havautinik, kikturiiyaut timimullu nanuutauyuq.

What's in your Computer?

Hunaqaqa qaritauyaqni?



Did you know we use minerals every day? The products of mining provide many essential items, including highways, electrical and communications networks and housing.

Qauyimavit atuinaqtugut uyaraktaaqhanik ublutuaraagat? Hanahimayut uyaraktaanit pipkaiyut amihunik atuqniqaqtunik piqutinik, apqutiniklu, alruyaqtuutit, tuhaumajutinulu, igluliqinikulu.

In the puzzle below, can you find the metals and minerals that make up computers, cell phones and most other high-tech gadgets?

Iviktitaami aaliuyumi, nanilaaqigit havivaluit uyaraktaakhalu qaritauyaliurutit, hivayautinik alruyaqtugitunik amigaitulu aalat nutauniqhat ihuaqutit?

WORD BANK

ALUMINUM	COPPER	GOLD	NICKEL	TIN	ZINC
CHROMIUM	GALLIUM	LEAD	SILVER	TITANIUM	
COBALT	GERMANIUM	LITHIUM	TANTALUM	TUNGSTEN	

J	Z	D	W	P	J	M	C	S	I	L	V	E	R	D	B	T	B
L	O	C	R	I	U	S	R	T	T	U	O	N	N	S	I	U	J
Q	Z	C	H	I	J	E	B	J	I	L	M	D	S	T	B	N	R
D	X	B	L	R	C	A	R	G	E	T	V	F	L	X	T	G	U
N	T	L	X	O	O	O	G	E	R	M	A	N	I	U	M	S	X
I	A	G	I	P	B	M	F	A	T	D	V	N	D	S	P	T	B
G	N	M	O	W	R	M	I	H	M	J	U	R	I	M	B	E	C
M	T	X	X	L	M	E	M	U	Q	L	D	W	O	U	Z	N	O
U	A	D	O	D	D	B	P	U	M	V	K	V	R	K	M	F	B
N	L	T	L	L	O	Y	X	P	I	N	I	C	K	E	L	H	A
I	U	L	E	A	D	W	V	J	O	C	C	J	P	U	J	N	L
M	M	G	Z	X	K	G	C	P	H	C	G	P	C	S	I	L	T
U	O	L	E	U	S	N	D	Y	N	H	F	P	C	T	H	E	D
L	B	Q	F	B	I	H	L	A	Q	I	N	S	T	B	E	L	X
A	K	T	G	Z	O	J	V	L	I	T	H	I	U	M	I	R	V

Word Jumble
Taijuhiqnik ihuaqhaqnigit

EHYATTSM ___ ___ ___ ___ ___ ___ ___ ___

___ ___ ___ ___ ___ ___ ___ ___ TIMETHAE

___ ___ ___ ___ ___ ___ ___ ___ ___ SLMNETIOE

___ ___ ___ ___ ___ ___ EIALHT

SGNISE ___ ___ ___ ___ ___ ___

RATEING ___ ___ ___ ___ ___ ___ ___

HLTYORIE ___ ___ ___ ___ ___ ___ ___ ___

___ ___ ___ ___ ___ ___ ___ ___ LITORUFE

___ ___ ___ ___ ___ ___ ___ CCLIATE

LEBKIMIETR ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

STHCIS ___ ___ ___ ___ ___ ___

___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ !!

Unscramble the names of these rocks and minerals to unearth the hidden phrase.

Ihuaqhaqlugit atiit ukua uyaqat uyaraktaakhalu takuukhauliriagani iiqhimayut uqauhiq.

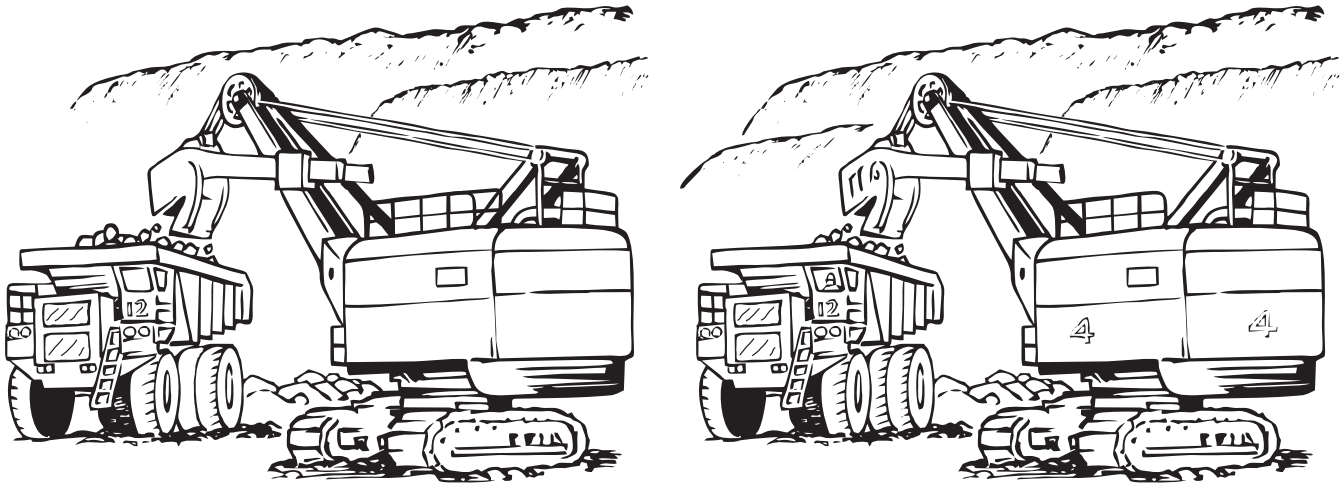
WORD BANK

AMETHYST
CALCITE
FLUORITE
GNEISS
GRANITE
HALITE
HEMATITE
KIMBERLITE
LIMESTONE
RHYOLITE
SCHIST

Spot the Differences
Tikuaqlugit aalaganigit

Can you find eight differences between these two pictures?

Nanihilaaqit iinik (8) aalaganiginik ukua malruuk piksak?



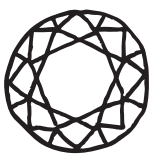
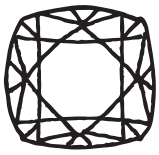
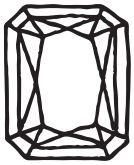
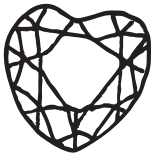
Gemstone Month
Piniqutikhat Tatqiqhiutini

Gemstones, also called precious or semi-precious stones, are cut and polished minerals used to make jewellery. Certain rocks (lapis lazuli) or organic material (amber) that are not minerals, are also used for jewellery and are therefore often considered to be gems as well. Each month has an official gemstone.

Pinigutikhat, taiyauvaktulu akituyunik akituvyaktunikluniit uyaqanik, kivluqtauyut qivlikhaqhugilu uyaraktaat piniqutikhat. Ilagit uyaqat (lapis Lazuli-guyut) nunamiutat (amber-yut) uyaraktaakhaugitut, atuqtauvaktulu piniqutikhanik taimainiganit ihumagiyauvaktut piniqtuniklu. Atuni tatqiqhiut ilitariyauhimayumik piniqutiqaqtuq.

Can you unlock the key to figure out which gemstone belongs to each month in the calendar? There are six different popular gem shapes which represent a vowel in this challenge to help you get started.

Akmaqniaraluaqiuk naunairiagani kitu piniqutikhaq ataniganik atuni tatqiqhiunmi? Piqaqtuq siksinik (6) aalatqiiik takuukhauginaqtunik piniqutikhanik titirauhianik uvani uuktuutauyumi ikayuriaqni aulaqtiriaqniriyaqni.

Circle Kaimalluriktuq	**Square Cushion** Kikkariktuq Akit	**Marquise** Marquise	**Emerald** Emerald	**Heart** Uumataa	**Baguette** Baguette
					
A	**E**	**I**	**O**	**U**	**Y**

January
Ubluqtuhirvia

February
Iidjurvia

March
Qiqailruq

April
Qittiqqautijuq

May
Qiqaijaluarvia

June
Imaruqtirvia

July
Taaqhivaliavia

August
Niqiliqivik

September
Apitilirvia

October
Tattiarnaqtuq

November
Hikutirvia

December
Ubluiqtirvia

WORD BANK

AMETHYST AQUAMARINE CITRINE DIAMOND EMERALD GARNET OPAL PEARL PERIDOT RUBY SAPPHIRE TURQUOISE

Hidden Word Sudoku

Iirhimayuq Tainiit Sudoku

Fill in the grid so that every row, every column and every 3 x 3 box contains each of the nine numbers below ONLY ONCE.

Iliuraqlugu tamaita titiqqami taimaa tamaita kikkariktumik piqaqtuq tamaita 3 x 3 qiuqutinga piqaqtuq tamarmik 9nik nampanik ATAUHIINAQMI ATUQTAUYUT.

		3	6	8	4			9
4	5		7			2		3
	8	9			2		1	4
3	9		4		6	8		
6			1	9		4	3	
2		1		7		5	9	
			2	6		9	4	5
	6	4		3	8			7
5	1	2			7		6	

What are the two hidden words in the diagonal from top left to bottom right?

Hint: This term describes the endless processes that create, change, destroy and recreate the three main groups of rocks – igneous, sedimentary and metamorphic.

__ __ __ __ __ __ __ __ __

1 = R 4 = K 7 = B
2 = L 5 = O 8 = E
3 = Y 6 = A 9 = C

Hunaukmata malruuk iirhimayut tainiit uvingayumik qaanganit haumikmi ataanut taliqpianganit?

Ikayuutaut: Una taininnga naunnaiqtaa nungulaittuq havaaq piliuqtuq, aadlanguqtuq, ahiruqtiqtuq piliuffaarhugulu pingahuuyut iliuralluarutinganut uyaqqanut– qaumayuq, marluinnaq unalu uunaktitauyut uyaqqanik.

Careers
Havaat

A career in mining is more than you think! There are over 120 different careers in the mining industry. Discover a world of opportunities.

Havaaq uyaraktaqvikmi agitqiyaq ihumagiyaqnit! Piqaqtuq avatqumayunik 120 havaakhat uyaraktaqtuni. Iliturijavat amitaituraaluit havaakhat.

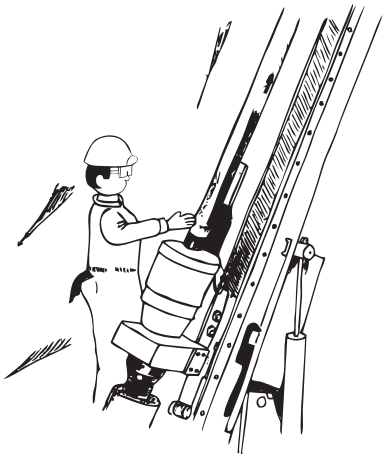
Can you unscramble the careers described below?

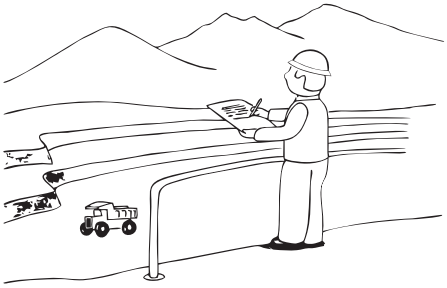
Ihuahalaaqigit havauhiuyut uqautauyut ataani?

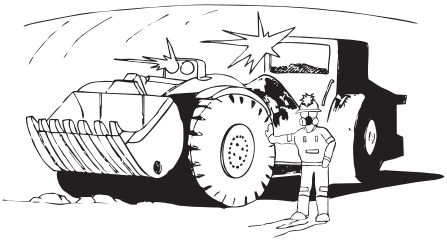
SCRAMBLE Hiamayaklugit	**CAREER** Havaaq
1. LOOSEGGIT	Evaluates the geological aspects of mine sites | Naunaiyaqlugit nunauyut uyaraktaqvikni igluqpaqaqvikni
2. EINM ENIRNEEG	Designs plans for mine sites and mining operations | Titirauyaqlugit upalugaiyautit uyaraktaqvikhamik igluqpaqaqvikhamik
3. CRETILNIACE	Repairs a variety of electrical equipment | Ihuaqutauyuq aalatqiinik alruyaqtuqtunik piqutinik
4. OADMIDN IDLRERL	Uses a drill with a diamond tipped bit to bore deep holes | Atuqtuq ikutaqmik hitiyumik nuvuqaqtumik ikutariagani unugaaluk nunap iluanut
5. YETFSA TSRNEPICO	Visits the mine to ensure safe working conditions | Pulaqhugu uyaraktaqvik aaniqnainiga nalunairumaaqtuq
6. REANLVMOINTNE ICESTSTNI	Ensures that the mine operations follow environmental guidelines | Uyaraktaqvik naunaiyaqlugu malitiaqmagaa avatiliqinikut maliruagakhanik
7. LEBSTRA	Blasts large rocks and other surfaces for mining | Qagaqtitaiyuq uyaragaaluknik ahiiniklu nunanik uyaraktaqviuyaagani
8. EALLTGURISMT	Supervises the extraction of metals from ores | Munaqhiyi ahivainiginik havivaluit uyaraktaanit
9. EIETQPUNM ROTEORPA	Operates equipment used in daily mine operations | Atuqtuq piqutinik atuqtauyunik ublutuaraagat uyaraktaqvikmi
10. EAHVY UYDT NIMCEHAC	Repairs and maintains heavy duty equipment | Ihuaqhaiyi munarivlugilu agiyut akhalutiraaluit piqutit
11. PUTRMECO ATSESIPLIC	Maintains and operates robots and computer networks | Munagivagait atuqhugilu inuguat qaritauyalu ihuaqutauyut
12. ORUWSAEEH OPNRES	Ensures all the materials are well organized, documented, and stored accurately in all climates | Naunaiqtaa tamaita tamayat ihuarhaqhimayut, titiraqtauyut tutquqtauyullu ihuaqtumik humaangittuq anuringa
13. UNESR	Provides medical care and promotes wellness to employees | Tuniyuq munarhiliqiyauyut atuliqtitauyuqlu nakurudjutingit havaktut

WORD BANK

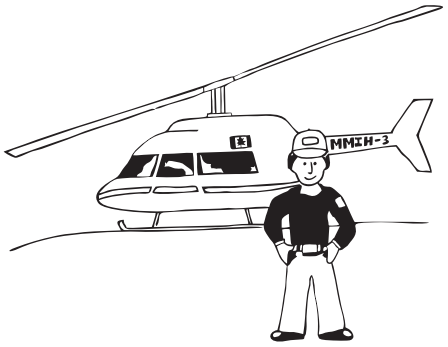
BLASTER	EQUIPMENT OPERATOR	NURSE
COMPUTER SPECIALIST	GEOLOGIST	SAFETY INSPECTOR
DIAMOND DRILLER	HEAVY DUTY MECHANIC	WAREHOUSE PERSON
ELECTRICIAN	METALLURGIST	
ENVIRONMENTAL SCIENTIST	MINE ENGINEER	

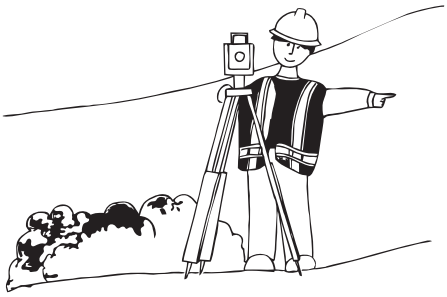


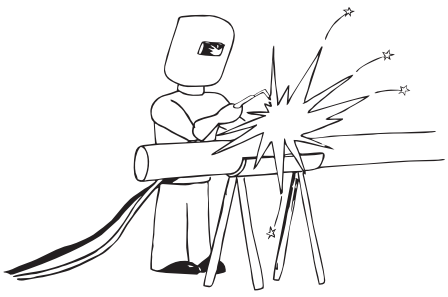





THERE IS NO I IN TEAMWORK
TEAM WORK WORKS!!


MMIH-3





Symbol Sudoku

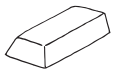
Naunaitkutaq Sudoku

Fill in the grid so that every row, every column and every 3 x 3 box contains each of the nine symbols below ONLY ONCE.

Iliuraqlugit tamarmikpiaq, tamaita 3 x 3 qiuqutinga piqaqtuq tamarmik 9nik nampanik ATAUHIINAQMI ATUQTAUYUT.

SYMBOLS NAUNAITKUTAT

Safety Glove
aniriipkutit
pualuuk



Gold Bar
Gold
Uyaraq

Diamond
Diamond

Scoop Tram
Qaluraut

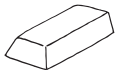
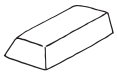
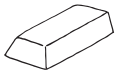
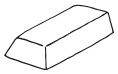
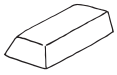
Safety Boot
aaniriipkutik
kammak

Hard Hat
hitiyuq
nahaq

GPS
GPS

Microscope
Qun'ngiarut
Mikkarnik

Head Lamp
Niaqurni
Atuqtauyuq
Qulliq

Periodic Table Spelling Bee

Atuqtaunginnaqtuq Tainiit Qanuqtut Titiraqhimayut

Elements are the basic building blocks of everything around us. They can be found either in their pure form or chemically combined with other elements to make compounds. Minerals are elements or compounds that occur naturally in the Earth's crust. Rocks are mixtures formed of minerals.

Ilagigyangit ayurnaittut piliurninnga hunavaluknik uvaptikni. Takunnaqtut ahiruqtitautinnagit uunaqtunikluuniit atuqtauyut aadlanut ilagiyanganik ilaliutigiami. Uyaqqat ilagiyauyut ilaliutigiamilu pivaktuq Nunaup qaanganit. Uyaqqat aadlatqiinguyut piliurhimayuq uyaqqamit.

How many words can you spell from the 114 element symbols? Challenge yourself to make three-letter, four-letter, five-letter and even six-letter words.

Qaffinik taininik qanuqtut titiraqhimava uumannga 114 ilagiyanginnit naunaitkutat? Akimanahuarlutit piliuqlutit pingahunik titiraqhimaninnga, hitamanik-titiraqhimaninnga, tallimanik-titiraqhimaninnga 6-titiraqhimaninnga words.

Hydrogen H																	Helium He
Lithium Li	Beryllium Be											Boron B	Carbon C	Nitrogen N	Oxygen O	Fluorine F	Neon Ne
Sodium Na	Magnesium Mg											Aluminum Al	Silicon Si	Phosphorus P	Sulfur S	Chlorine Cl	Argon Ar
Potassium K	Calcium Ca	Scandium Sc	Titanium Ti	Vanadium V	Chromium Cr	Manganese Mn	Iron Fe	Cobalt Co	Nickel Ni	Copper Cu	Zinc Zn	Gallium Ga	Germanium Ge	Arsenic As	Selenium Se	Bromine Br	Krypton Kr
Rubidium Rb	Strontium Sr	Yttrium Y	Zirconium Zr	Niobium Nb	Molybdenum Mo	Technetium Tc	Ruthenium Ru	Rhodium Rh	Palladium Pd	Silver Ag	Cadmium Cd	Indium In	Tin Sn	Antimony Sb	Tellurium Te	Iodine I	Xenon Xe
Caesium Cs	Barium Ba	LANTHANIDES *	Hafnium Hf	Tantalum Ta	Tungsten W	Rhenium Re	Osmium Os	Iridium Ir	Platinum Pt	Gold Au	Mercury Hg	Thallium Tl	Lead Pb	Bismuth Bi	Polonium Po	Astatine At	Radon Rn
Francium Fr	Radium Ra	ACTINIDES **	Rutherfordium Rf	Dubnium Db	Seaborgium Sg	Bohrium Bh	Hassium Hs	Meitnerium Mt	Darmstadtium Ds	Roentgenium Rg	Copernicium Cn	Ununtrium Uut	Flerovium Fl	Ununpentium Uup	Livermorium Lv	Ununseptium Uus	Ununoctium Uuo

*	Lanthanum La	Cerium Ce	Praseodymium Pr	Neodymium Nd	Promethium Pm	Samarium Sm	Europium Eu	Gadolinium Gd	Terbium Tb	Dysprosium Dy	Holmium Ho	Erbium Er	Thulium Tm	Ytterbium Yb	Lutetium Lu
**	Actinium Ac	Thorium Th	Protactinium Pa	Uranium U	Neptunium Np	Plutonium Pu	Americium Am	Curium Cm	Berkelium Bk	Californium Cf	Einsteinium Es	Fermium Fm	Mendelevium Md	Nobelium No	Lawrencium Lr

THREE LETTERS
PINGAHUT
TITIRAQHIMANINNGA

C At

FOUR LETTERS
HITAMAT
TITIRAQHIMANINNGA

K I Te

FIVE LETTERS
TALLIMAT
TITIRAQHIMANINNGA

S Po O N

SIX LETTERS
6
TITIRAQHIMANINNGA

Cl O U Dy

Geology Word Search
Nunaliqinikut Taijuhiqnik Qiniqhiajut

Geologists tell us the story of the Earth and help find important rock, mineral, metal and petroleum resources.

Nunaliqiyit unipkaaqtut Nunaqyuamik ikayuqhutiklu nanihiyaagani atuqniqaqtunik uyaqani, uyaraktaakhanik, havivaluknik, uqhuqyuavaluknilu ihuagutinik.

GEOLOGY: Geology is the study of the Earth. | NUNAMIK NAUNAIYAININNGA: Nunamik naunaiyaininnga naunaiyaqtut Nunaptiknik.

ELEMENTS: Elements are naturally occurring pure substances. They make up all matter, including minerals. | ILAGIYANGIT: Ilagiyangit piliqtuq hunavalut. Piliuqtait tamaita hunavaluknik, hapkuallu uyaqqat.

MINERALS: Minerals are made of elements that occur naturally. | UYAQQAT: Uyaqqat piliurhimayut ilagiyangit piliqpaktut inmiknik.

ROCKS: Rocks are made up of two or more minerals. | UJARAK: Uyaqqat piliurhimayuq malruuknik amihunikluuniit uyaqqanik.

SEDIMENTARY: One of three types of rocks. Sedimentary rocks are formed from the deposition of rocks, minerals or organisms. | MARLUK: Atauhiq pingahunit aadlatqiinik uyaqqanik. Marluk uyaqqat piliurhimayuq piiyarninnganit uyaqqanit, uyaqqat imarmiutamilluuniit.

IGNEOUS: One of three types of rocks. Igneous rocks are formed through cooling of lava or magma. | QAUMAYUT: Atauhiq pingahunit aadlatqiinik uyaqqanik. Qaumayut uyaqqat piliuqtauyut niglaqtiqtauuplugit uuminnga uunaqpiaqtuq kuviyuq kingingniqmit qaumayunilluuniit uyaqqanit.

METAMORPHIC: One of three types of rocks. Metamorphic rocks are created by the transformation of existing rock through heat and pressure. | UUNAKTITAUYUT UYAQQANIK: Atauhiq pingahunit aadlatqiinik uyaqqanik. Uunaktitauyut uyaqqanik piliurhimayut aadlangurninnga uyaqqat uunaqtitauplugit akhuurutaupkarhugilluuniit.

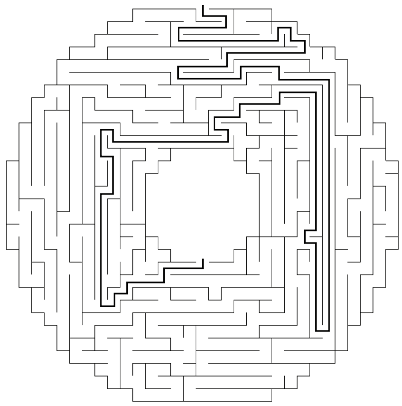
Find the geology words in the word search.

Nanilugit nunaliqinikut taijuhiqnik uvani taijuhiqnik qiniqhiajutini.

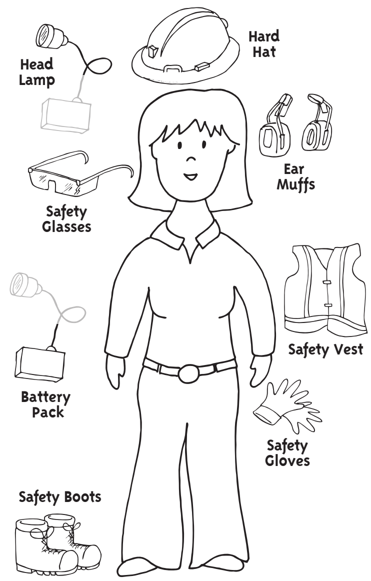
M	S	Q	V	R	Z	S	N	R	D	R	W	N	G
E	U	X	L	K	E	F	V	D	O	V	G	R	P
T	O	E	P	C	G	A	N	O	I	C	O	R	E
A	E	K	K	O	L	U	N	T	O	R	K	J	C
M	N	Y	R	A	T	N	E	M	I	D	E	S	S
O	G	X	W	T	I	G	X	K	O	O	S	U	A
R	I	J	Y	N	W	Y	I	R	I	C	K	S	V
P	K	A	E	X	T	R	U	S	I	V	E	R	L
H	S	N	M	I	N	E	R	A	L	S	U	J	K
I	T	E	L	E	M	E	N	T	S	T	E	T	U
C	K	G	E	O	L	O	G	Y	U	S	I	V	E

Answers
Kiudjutingit

Navigate to the Surface



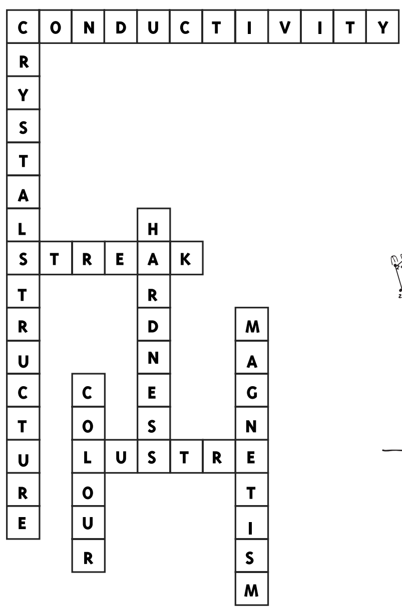
Safety Dress Up



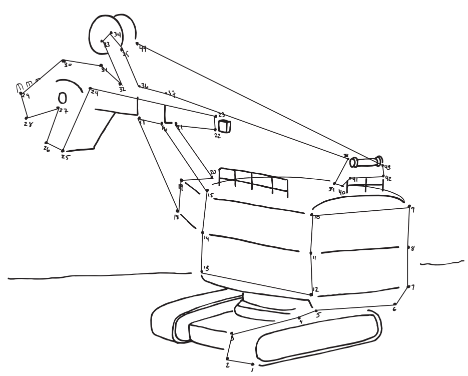
Underground Mining

J	M	F	R	Z	Z	G	O	A	I	V	Y
D	P	A	M	A	N	S	R	P	E	H	D
N	G	W	R	I	M	X	F	N	J	M	O
U	I	Z	N	T	E	P	T	Y	P	I	B
O	M	I	O	S	P	I	F	D	O	E	E
R	M	R	O	W	L	O	S	R	N	P	R
G	C	S	O	A	D	S	O	I	A	J	O
R	G	Y	T	A	C	C	M	C	C	G	V
E	S	I	D	R	I	F	T	S	S	S	X
D	O	S	E	V	I	S	O	L	P	X	E
N	F	X	E	U	G	V	N	V	M	N	N
U	Y	F	U	H	R	X	C	J	T	V	Z

Mineral Properties



Connect the Dots

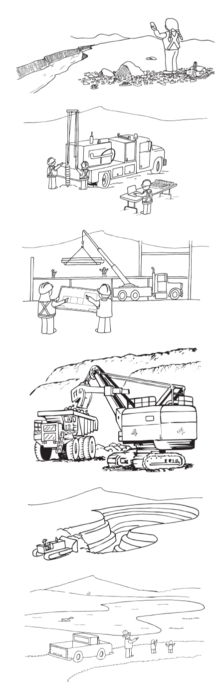


Pakak the Prospector

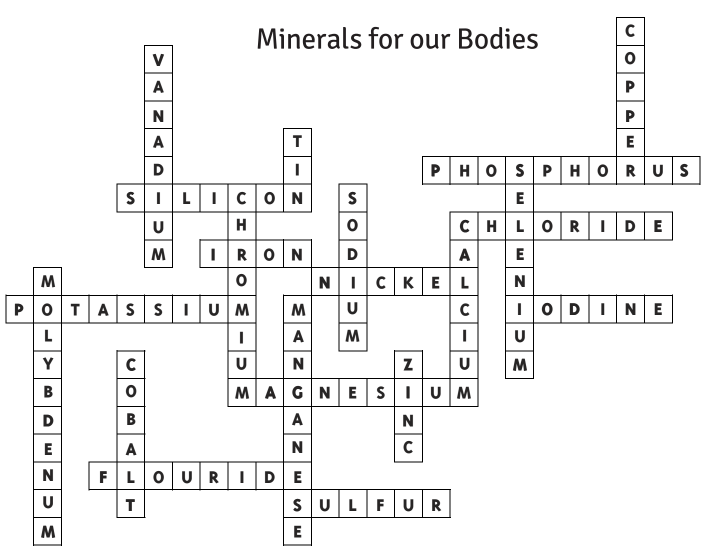
IN ORDER OF USE:

EARTH
DETECTIVE
GOLD
GPS
TUNDRA
ROCK HAMMER
SAFETY GLOVES
ADVENTURE

The Mining Process



Minerals for our Bodies



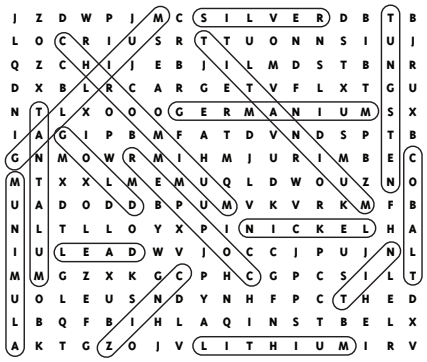
Answers
Kiudjutingit

Hidden Word Sudoku

1	2	3	6	8	4	7	5	9
4	5	6	7	1	9	2	8	3
7	8	9	3	5	2	6	1	4
3	9	5	4	2	6	8	7	1
6	7	8	1	9	5	4	3	2
2	4	1	8	7	3	5	9	6
8	3	7	2	6	1	9	4	5
9	6	4	5	3	8	1	2	7
5	1	2	9	4	7	3	6	8

ROCK CYCLE

What's in your Computer?



Gemstone Month

January GARNET
February AMETHYST
March AQUAMARINE
April DIAMOND
May EMERALD
June PEARL
July RUBY
August PERIDOT
September SAPPHIRE
October OPAL
November CITRINE
December TURQUOISE

Word Jumble

AMETHYST
HEMATITE
LIMESTONE
HALITE
GNEISS
GRANITE
RHYOLITE
FLUORITE
CALCITE
KIMBERLITE
SCHIST

MINING ROCKS !!

Product Matching

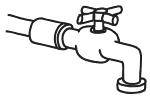
MICA AND TALC

CALCITE

GOLD

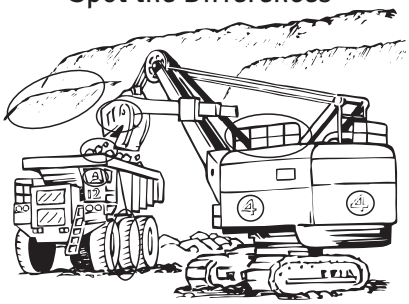
HALITE

SPHALERITE

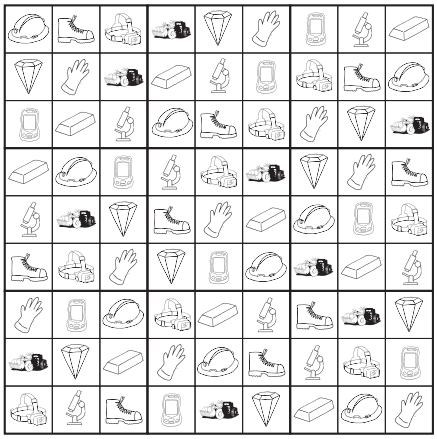


CHALCOPYRITE

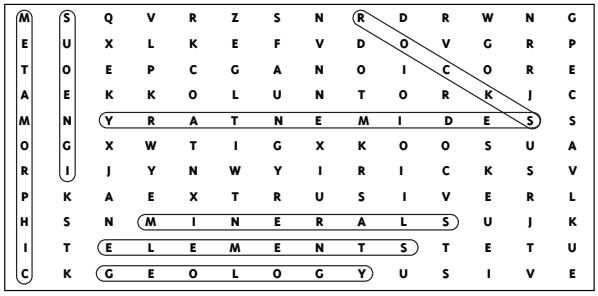
Spot the Differences



Symbol Sudoku



Geology Word Search



Careers

Geologist
Mine Engineer
Electrician
Diamond Driller
Safety Inspector
Environmental Scientist
Blaster
Metallurgist
Equipment Operator
Heavy Duty Mechanic
Computer Specialist
Warehouse Person
Nurse

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