

# VIRTUAL YUKON MINING WEEK

MAY 4<sup>TH</sup> – MAY 8<sup>TH</sup>

PRESENTED  
IN PARTNERSHIP



# ACTIVITY BOOK

FUN FOR ALL AGES!



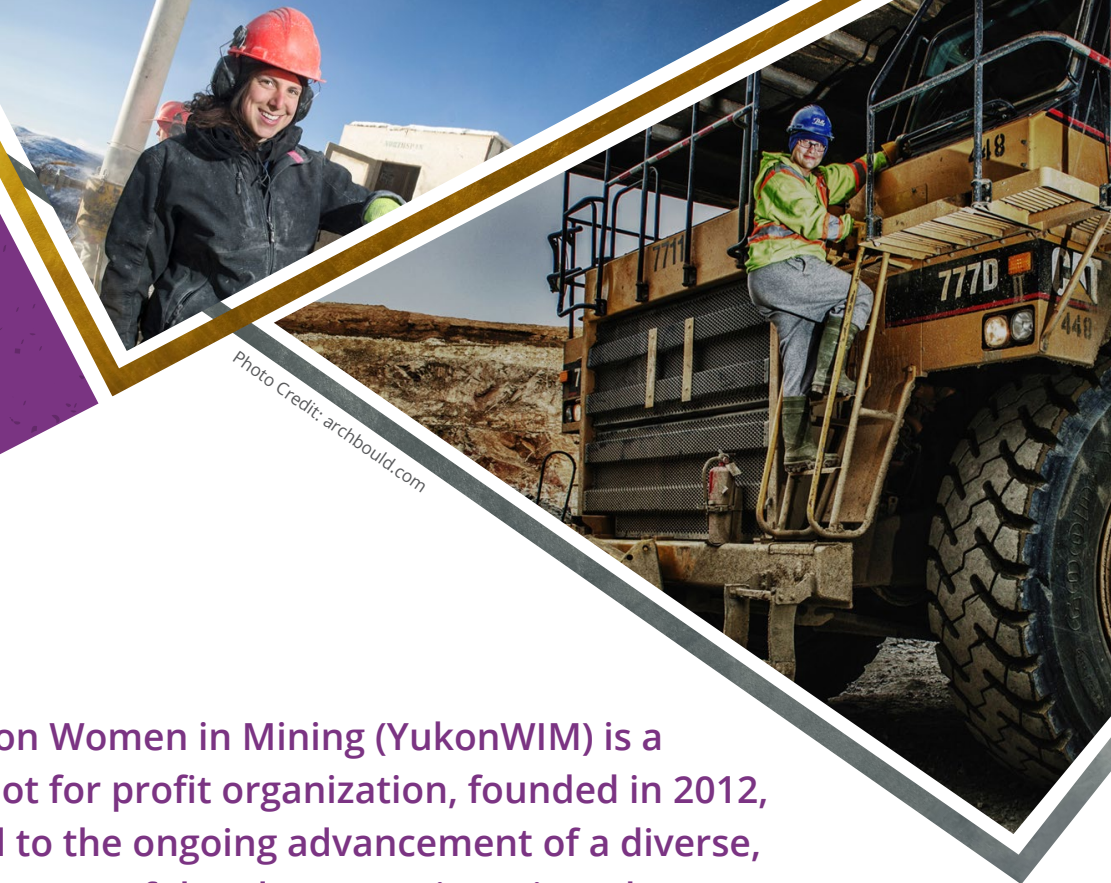


Photo Credit: archbould.com

Yukon Women in Mining (YukonWIM) is a regional not for profit organization, founded in 2012, dedicated to the ongoing advancement of a diverse, inclusive, respectful and progressive mineral sector that supports healthy and prosperous Yukon communities.

### OUR GOALS:

#### INCLUSION IS...

about shaping a culture where all members feel accepted, are treated fairly and equitably, and are inspired to participate at all levels and in all organizational processes. It is the key to unlocking the value that diversity brings.

#### DIVERSITY IS...

representation, a measurable business outcome, a recognition of individuals as unique. The diversity mix brings opportunities for innovation and value creation. Developing a culture of inclusion is key to unlocking the potential of diversity.

#### CULTURE IS...

the consistent and observable patterns of behaviour that are encouraged by people and systems over time and in place. It is revealed in how people speak, act and interact, reflecting organizations' norms for acceptable behaviour.

 @YukonWomenInMining

[YUKONWIM.CA](http://YUKONWIM.CA)

[info@YukonWIM.ca](mailto:info@YukonWIM.ca)

ENCOURAGE | EMPOWER | EDUCATE | ELEVATE



# VIRTUAL YUKON MINING WEEK

MAY 4<sup>TH</sup> - MAY 8<sup>TH</sup>

PRESENTED IN PARTNERSHIP



## THANK YOU FOR JOINING US FOR VIRTUAL YUKON MINING WEEK!

Yukon Women in Mining, in partnership with Government of Yukon and Yukon Mining Alliance, has adapted its previously planned mining advocacy and educational programming for Yukon Mining Week to accommodate learning from home this year.

### CONTEST PRIZES & SCHOLARSHIPS:

**GRADES K-12:**  
Up to 30 Available!

**GRAND PRIZE:**  
(Open to All Grades)  
One Amazing Prize

**SCHOLARSHIPS**  
(Grade 12 Students)  
Up to 4 x \$1,000 Scholarships

### SUBMISSION:

#### ON SOCIAL MEDIA:

**f** @YukonWomenInMining –  
Virtual Yukon Mining Week Event Page  
#VYMW2020

**BY E-MAIL:** submissions@yukonwim.ca

#### INCLUDE SUBJECT LINE:

Activity Name, Your Name, Your Grade

i.e.: Activity 1: Elemental Deduction, Annabelle Smith, Grade 6

## HOW TO PLAY!

- 1 Complete an Activity and Answer the Questions
- 2 Submit Your Activity to Enter into YOUR GRADE GROUP draw by Friday, May 8<sup>th</sup> at 5PM
- 3 Completed activities that are not in YOUR GRADE GROUP? No problem! You will be entered into the GRAND PRIZE!  
*The more activities you complete, the greater your chances of winning!*
- 4 Winners will be posted on the **f** @YukonWomenInMining – Virtual Yukon Mining Week Event Page and contacted from May 11<sup>th</sup> – 15<sup>th</sup>

### INCREASE YOUR CHANCES OF WINNING

Complete more activities!  
Every completed activity is another time  
your name will be in the draw.

### GRADE GROUPS:

<b>K-3</b>	<b>4-6</b>
<b>7-9</b>	<b>10-12</b>

# WHERE challenge

Sponsored by Teck

## EVENT INFORMATION: YUKON WHERE CHALLENGE

Welcome to the **Yukon WHERE Challenge** presented to you by Mining Matters and the Yukon Chamber of Mines! The **Yukon WHERE Challenge** is a contest endorsed by the Canadian Earth sciences community that asks Yukon students grades 3-12 to discover the answers to these questions: *What on Earth is in your stuff?* and *WHERE on Earth does it come from?* WHERE stands for the places where Earth scientists work: Water, Hazards, Energy, Resources, and Environment. Students can enter as an individual or team up with your siblings and family for a chance to win some great prizes! All students have to do is use their imagination and dig up some interesting facts about their stuff.

The Yukon WHERE Challenge is straightforward. All WHERE Challenge participants have to do is pick a favourite object in their home, or yard – something they might even use everyday – and, identify one or more **non-renewable Earth resources** needed to make that object and tell us WHERE on Earth those resources come from. Students are encouraged to get creative as they can submit their entries in the form of a story or a poem, a song or a play, a poster, an audio, video or multimedia presentation or anything else you can dream up. The more original, the better!

Winning entries may be used as promotional tools to demonstrate how non-renewable Earth resources are essential to our everyday lives. The WHERE Challenge asks students to think hard, dream big, get creative, and discover the science around them!

**All winners will be announced May 15, 2020.**

### EVENT DETAILS:

Dates: Yukon WHERE Challenge runs from April 20th - May 8th

**Eligibility Requirements:** All Yukon students in Grades 3 - 12 are welcome to participate in the challenge.

Winning entries will receive cash or locally sourced prizes!

Visit [www.yukonminingwherechallenge.ca](http://www.yukonminingwherechallenge.ca) for more information.

# VIRTUAL YUKON MINING WEEK

MAY 4<sup>TH</sup> - MAY 8<sup>TH</sup>

PRESENTED  
IN PARTNERSHIP



## YUKON MINING: EXPLORE & DISCOVER!

Activity 1: Discover Yukon Mining Careers

Activity 2: Explore Minerals, Metals & Mining

Activity 3: Fossil Treasures from Frozen Ground: Ice Age Creatures

Activity 4: Archeological Addition

CONTEST OPEN TO  
GRADES K-3

GRAND PRIZE ENTRIES  
OPEN TO ALL

### SUBMISSION:

#### ON SOCIAL MEDIA:

 @YukonWomenInMining -  
Virtual Yukon Mining Week Event Page  
#VYMW2020

**BY E-MAIL:** [submissions@yukonwim.ca](mailto:submissions@yukonwim.ca)


#### INCLUDE SUBJECT LINE:

Activity Name, Your Name, Your Grade

i.e.: *By Individual: Activity 1: What is A Mine, Sarah Turner, Grade 1*

i.e.: *By Class: Activities 1-4, By Grey Mountain Primary, Grade 2*

## HOW TO PLAY!

- 1 Complete Activities 1-4
- 2 Submit Activities 1-4 to Enter into the Grades K-3 draw by Friday, May 8<sup>th</sup> at 5PM
- 3 Not in Grades K-3? No problem! Complete the Activities and be entered into the Grand Prize!  
*The more activities you complete, the greater your chances of winning!*
- 4 Winners will be posted on the  @YukonWomenInMining - Virtual Yukon Mining Week Event Page and contacted from May 11<sup>th</sup> - 15<sup>th</sup>

## INCREASE YOUR CHANCES OF WINNING

Complete more activities!  
Every completed activity is another time  
your name will be in the draw.

## GRADE GROUPS:

K-3      4-6  
7-9      10-12

# ACTIVITY 1: DISCOVER YUKON MINING CAREERS

WHAT DO I DO? **COLOUR**

**VIRTUAL  
YUKON  
MINING WEEK**

**MAY 4<sup>TH</sup> - MAY 8<sup>TH</sup>**



Illustration Credit: Jessica Prentice | Developed by: Yukon Women in Mining

## WHO AM I?

Modern mining employs large environmental teams of experts who work with water, wildlife, plants and communities. They work together to develop ways to minimize any harm to the environment during every stage of mining activity from exploration to mine closure to reclamation, by following environmental legislation and studying physical, biological, social and cultural factors. They often work closely with First Nation people, communities and governments to incorporate traditional knowledge to ensure sustainable long-term planning. Environmental Scientists are vital to the life of a mine in the 21<sup>st</sup> Century.

**SUBMISSION  
PROCESS**

**ON SOCIAL MEDIA:**

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**BY E-MAIL:** [submissions@yukonwim.ca](mailto:submissions@yukonwim.ca)

Include Subject Line: Activity Name, Your Name, Your Grade

**GR. K-3  
1**

# ACTIVITY 1: DISCOVER YUKON MINING CAREERS

WHAT DO I DO? **COLOUR**

**VIRTUAL  
YUKON  
MINING WEEK**

**MAY 4<sup>TH</sup> - MAY 8<sup>TH</sup>**

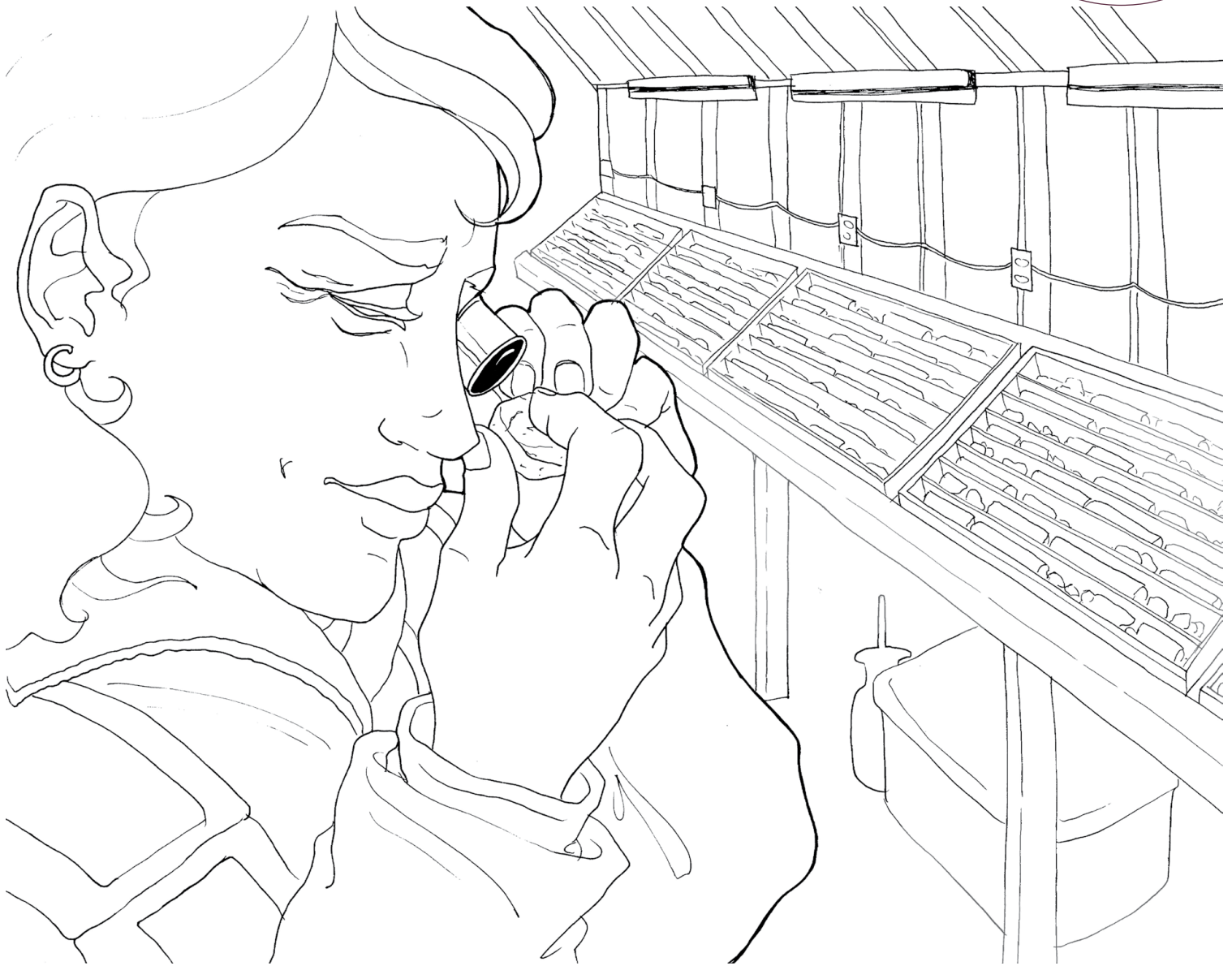


Illustration Credit: Jessica Prentice | Developed by: Yukon Women in Mining

## WHO AM I?

Geologists perform many specialized jobs that relate to the mining industry. They can study issues such as erosion, watershed management and mineral resource exploration. If working on a mine site, they could be collecting and analyzing rock, cores and soil samples; conducting geological surveys and field studies; or recording, interpreting and analyzing geological information from satellite images, maps and geochemical surveys. Geologists often travel the world and work on many different types of projects and sometimes advance right to the Management Team!

**SUBMISSION  
PROCESS**

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Include Subject Line: Activity Name, Your Name, Your Grade

**GR. K-3  
2**

# ACTIVITY 2: EXPLORE MINERALS, METALS AND MINING



## WHAT DO I DO?

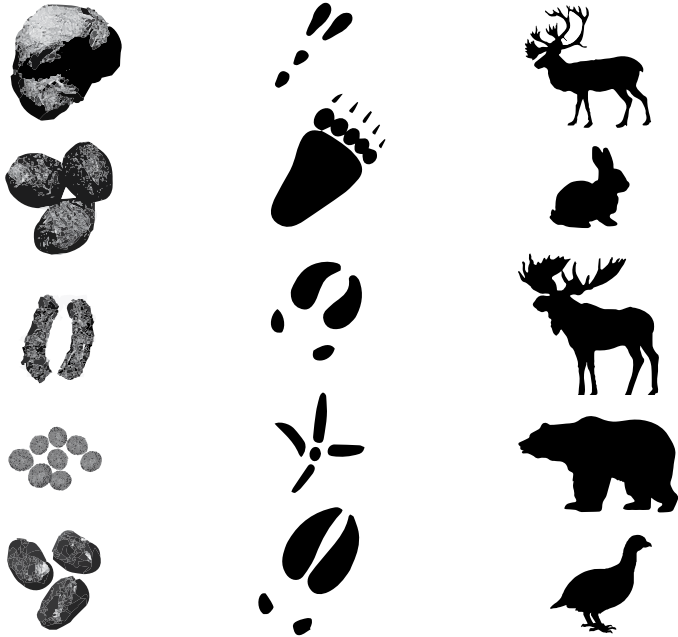
Grab your hard hat and get ready to dig into a mine load of fun!

## PROJECTS?

4

### 1: WHO POOPED & WHERE DID THEY GO?

You are doing a wildlife survey at an exploration project and need to monitor which animals are living and travelling through the area. Match the wildlife to their scat (poop).

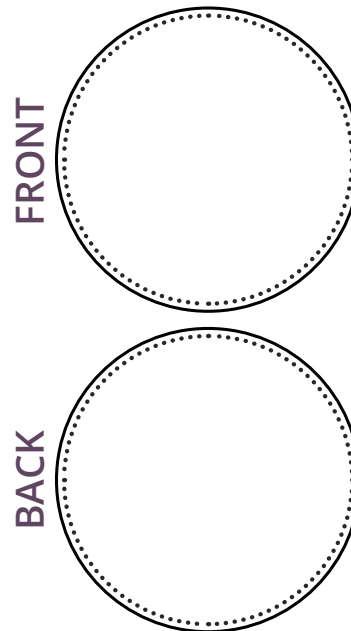


### 2: MAKE YOUR OWN MINT - DESIGN A COIN

In Yukon, we have our very own Yukon Mint that makes gold coins, featuring art designed by Yukon First Nation artists, made from gold mined in the Yukon.

Coins can be made out of gold, platinum, silver, copper and nickel.

What metal is your coin? Fill in the Periodic symbol for it!

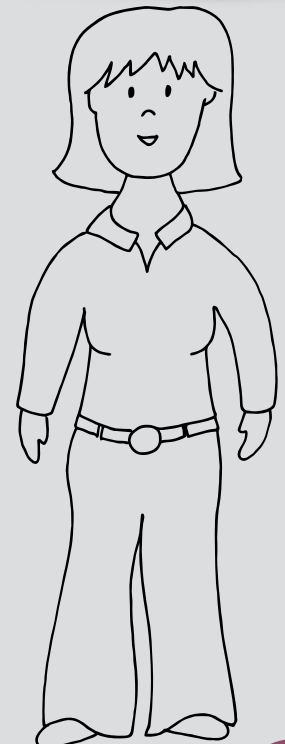
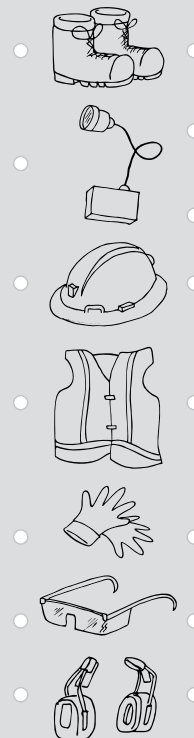


### 3: SAFETY DRESS UP

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

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

- Safety Gloves
- Hearing Protection
- Hard Hat
- Head Lamp and Battery Pack
- Safety Glasses
- Safety Boots
- Safety Vest



Resource Credit: Mining Matters

**DON'T FORGET TO SUBMIT BY FRIDAY, MAY 8<sup>TH</sup> AT 5PM!**

GR. K-3  
3

**SUBMISSION  
PROCESS**

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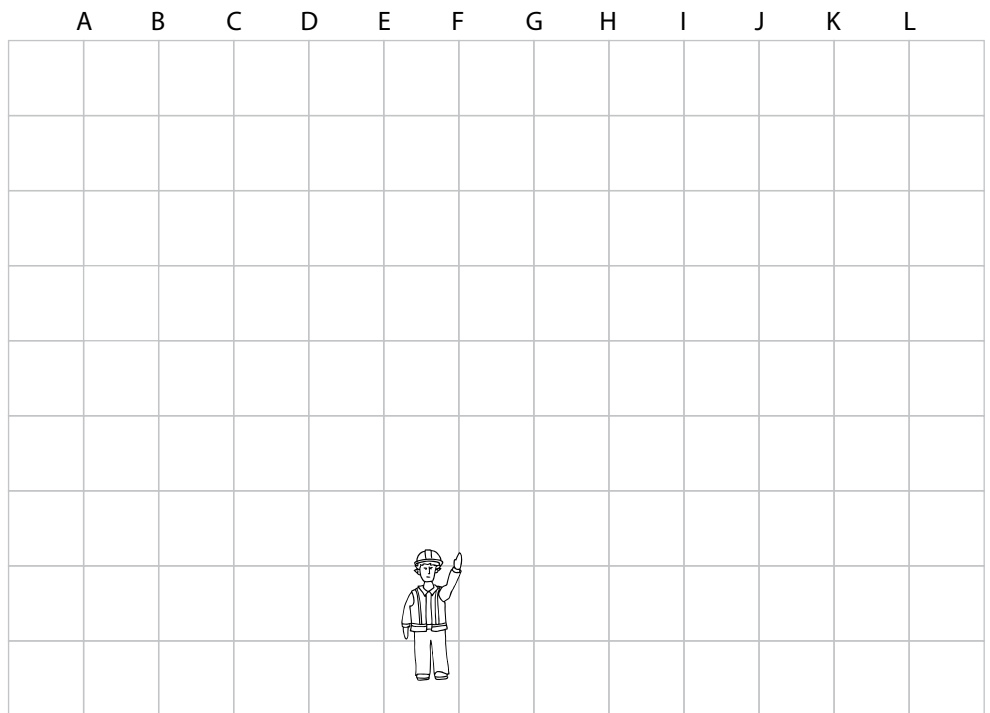
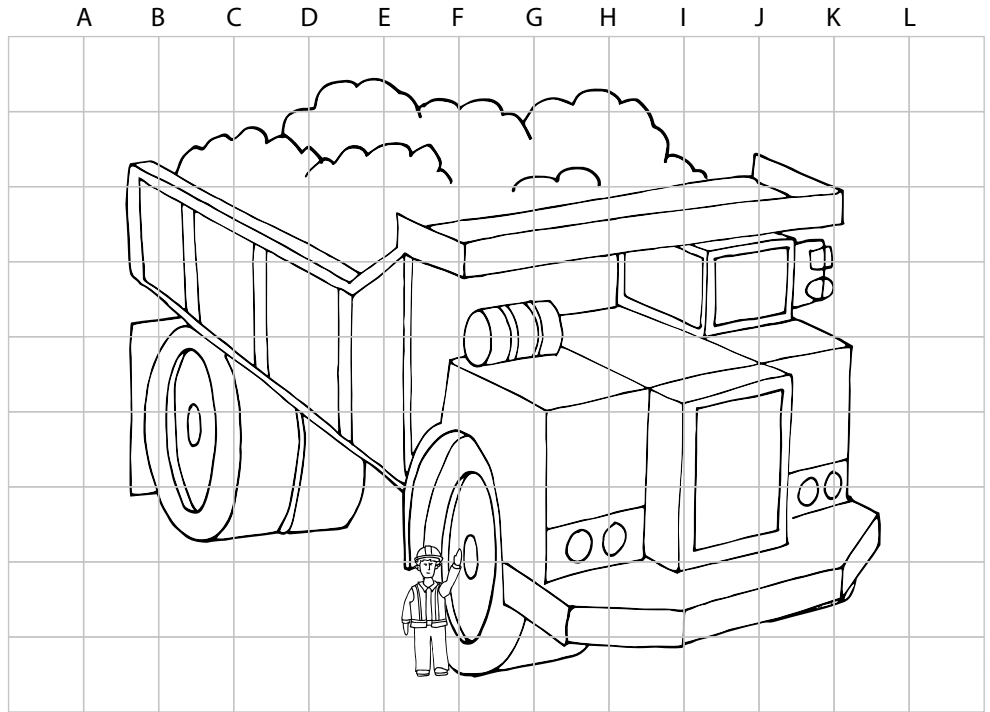
## 4: DRAW THE MINING TRUCK

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.

Draw and colour the mining truck using the grid below.



Photo Credit: Archbould Photography



Resource Credit: Mining Matters

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GR. K-3  
4

# ACTIVITY 3: FOSSIL TREASURES FROM FROZEN GROUND: ICE AGE CREATURES



Yukon Placer Miners unearth the fossils of ice age creatures across the Klondike using water, gravity and hard work, as they look for gold! Many of these wonderful and strange animals are now extinct and were nearly instantly frozen when they died. The permafrost provides the ideal situation for preserving bones, and

## CAN YOU MATCH THESE ANCIENT ICE-AGE CREATURES WITH THEIR NAME AND BONES?



Ground Sloth



Steppe Bison



Yukon's Camel



Woolly Mammoth



Giant Beaver

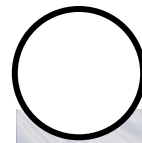


Saiga Antelope

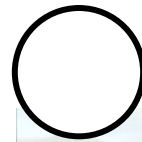


Scimitar Cat

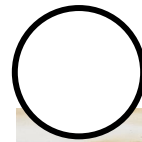
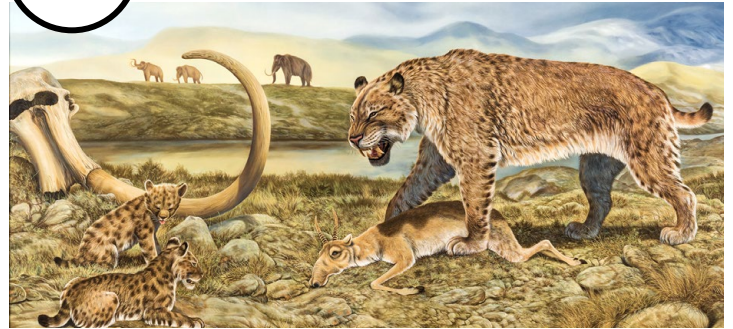
## HOW MANY CAN YOU COUNT?



WOOLLY MAMMOTHS



SCIMITAR CATS



STEPPE BISON



Resource Credit: The Yukon Beringia Interpretive Centre | Developed by: Yukon Women in Mining

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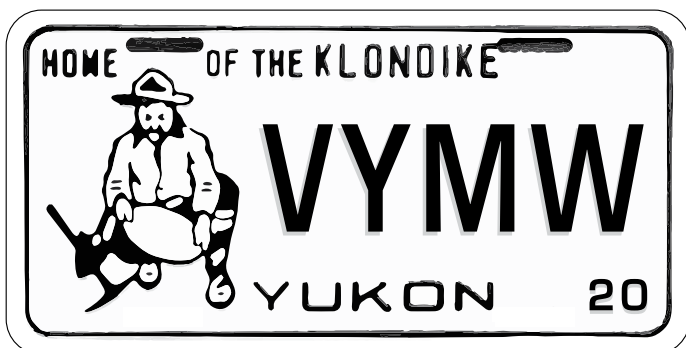
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**GR. K-3  
5**

# ACTIVITY 3: FOSSIL TREASURES FROM FROZEN GROUND: ICE AGE CREATURES

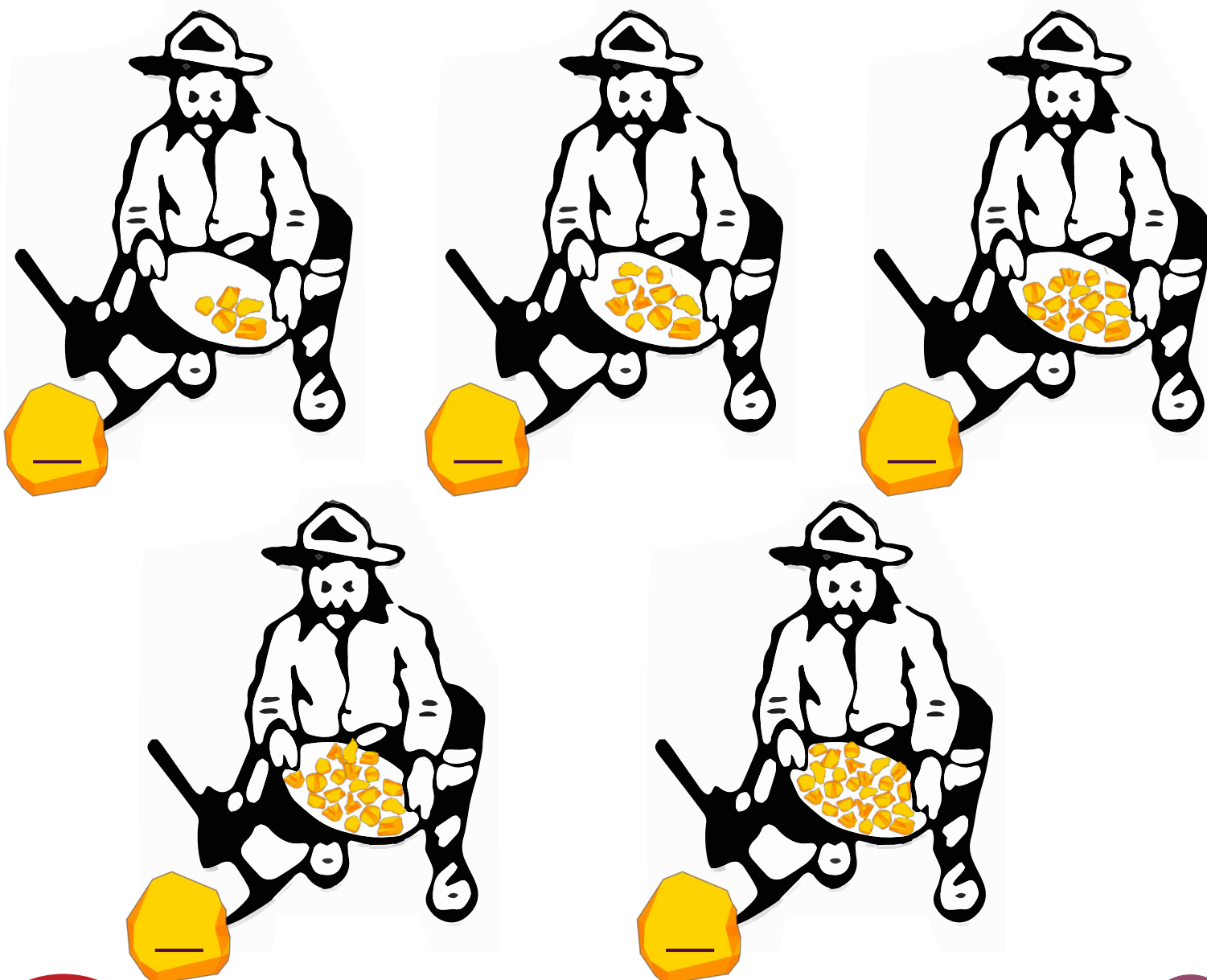
**VIRTUAL  
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MAY 4<sup>TH</sup> - MAY 8<sup>TH</sup>



## PICTURE OF YUKON LICENCE PLATE

Yukon's license plate celebrates our history, culture and connection to the Klondike Gold Rush of 1896 and the modern placer mining that is part of our lives today.

Can you count by fives how many gold nuggets are in the Placer Miners' pan?



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GR. K-3  
6

# ACTIVITY 4: ARCHAEOLOGICAL ADDITION



In summer 2011, Archaeologists made an exciting discovery doing a heritage assessment for the Casino Mining Project on the proposed Freegold Road. They unearthed a Chinese coin minted between 1667 and 1671!



## QUESTION: WHAT IS AN ARCHAEOLOGIST?

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The coin indicates that there may have been trade between Chinese people and Yukon First Nation people through Russian and coastal Tlingit trade during the late 17<sup>th</sup> and 18<sup>th</sup> centuries and perhaps as early as the 15<sup>th</sup> century.

## HOW MANY CHINESE COINS CAN YOU COUNT?

$$\begin{matrix} \text{coin} & \text{coin} \\ + & \text{coin} & \text{coin} & \text{coin} \\ \hline & = & \bigcirc \end{matrix}$$

$$\begin{matrix} \text{coin} & \text{coin} & \text{coin} & \text{coin} & \text{coin} & \text{coin} \\ + & \text{coin} & \text{coin} & \text{coin} & \text{coin} & \text{coin} \\ \hline & = & \bigcirc \end{matrix}$$

$$\begin{matrix} \text{coin} & \text{coin} & \text{coin} & \text{coin} & \text{coin} & \text{coin} & \text{coin} \\ + & \text{coin} & \text{coin} & \text{coin} & \text{coin} & \text{coin} & \text{coin} \\ \hline & = & \bigcirc \end{matrix}$$

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Photo Credit: Photo: Ecofor Consulting Ltd via Casino Mining Corporation

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GR. K-3  
7

**SUBMISSION  
PROCESS**

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# ACTIVITY 4: ARCHAEOLOGICAL ADDITION



**ARCHAEOLOGIST'S DIG 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.

**SYMBOLS**

- SAFETY GLOVE
- ARROW HEAD
- CHINESE COIN
- MAP OF YUKON
- SAFETY BOOT
- SHAKER SCREEN
- BRUSH
- MAGNIFYING GLASS
- COMPASS


Resource Credit: Mining Association of Canada

Name 5 things that a Yukon Archaeologist might find?

HINT: Be careful not to confuse them with a paleontologist!

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_



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 Include Subject Line: Activity Name, Your Name, Your Grade



**DON'T FORGET TO SUBMIT BY FRIDAY, MAY 8TH AT 5PM!**

**EVERYTHING COMES  
FROM SOMEWHERE.  
IF IT DIDN'T GROW,  
IT WAS MINED!**

# VIRTUAL YUKON MINING WEEK

MAY 4<sup>TH</sup> - MAY 8<sup>TH</sup>

PRESENTED  
IN PARTNERSHIP



Activity 5: Elemental Deduction  
Activity 6: Mining for Energy  
Activity 7: Mining Makes It Possible  
Activity 8: Periodic Table Spelling Bee

**CONTEST OPEN TO  
GRADES 4-6**

**GRAND PRIZE ENTRIES  
OPEN TO ALL**

## SUBMISSION:

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### INCLUDE SUBJECT LINE:

Activity Name, Your Name, Your Grade

i.e.: Activity 1: Elemental Deduction, Annabelle Smith, Grade 6

## HOW TO PLAY!

- 1** Complete an Activity and Answer the Questions
- 2** Submit Your Activity to Enter into the Grades 4-6 draw by Friday, May 8<sup>th</sup> at 5PM
- 3** Not in Grades 4-6? No problem! Complete the Activities and be entered into the Grand Prize!  
*The more activities you complete, the greater your chances of winning!*
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## INCREASE YOUR CHANCES OF WINNING

Complete more activities!  
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## GRADE GROUPS:

**K-3      4-6**  
**7-9      10-12**



# THE PERIODIC TABLE OF ELEMENTS

<b>H</b> 1 Hydrogen	<b>He</b> 2 Helium
<b>Li</b> 3 Lithium	<b>Be</b> 4 Beryllium
<b>Na</b> 11 Sodium	<b>Mg</b> 12 Magnesium
<b>K</b> 19 Potassium	<b>Ca</b> 20 Calcium
<b>Rb</b> 37 Rubidium	<b>Sr</b> 38 Strontium
<b>Cs</b> 55 Caesium	<b>Ba</b> 56 Barium
<b>Fr</b> 87 Francium	<b>Ra</b> 88 Radium
<b>Sc</b> 21 Scandium	<b>Ti</b> 22 Titanium
<b>V</b> 23 Vanadium	<b>Cr</b> 24 Chromium
<b>Mn</b> 25 Manganese	<b>Fe</b> 26 Iron
<b>Cu</b> 29 Copper	<b>Zn</b> 30 Zinc
<b>Al</b> 13 Aluminium	<b>Si</b> 14 Silicon
<b>C</b> 6 Carbon	<b>N</b> 7 Nitrogen
<b>O</b> 8 Oxygen	<b>F</b> 9 Fluorine
<b>Ne</b> 10 Neon	<b>Ar</b> 18 Argon
<b>B</b> 5 Boron	<b>Si</b> 14 Silicon
<b>Ge</b> 32 Germanium	<b>As</b> 33 Arsenic
<b>Sb</b> 51 Antimony	<b>Te</b> 52 Tellurium
<b>I</b> 53 Iodine	<b>Xe</b> 54 Xenon
<b>Br</b> 35 Bromine	<b>Kr</b> 36 Krypton
<b>Se</b> 34 Selenium	<b>Br</b> 35 Bromine
<b>Ag</b> 47 Silver	<b>Cd</b> 48 Cadmium
<b>Pt</b> 78 Platinum	<b>Au</b> 79 Gold
<b>Hg</b> 80 Mercury	<b>Tl</b> 81 Thallium
<b>Pb</b> 82 Lead	<b>Bi</b> 83 Bismuth
<b>Po</b> 84 Polonium	<b>At</b> 85 Astatine
<b>Rn</b> 86 Radon	<b>Uuo</b> 118 Ununoctium
<b>Y</b> 39 Yttrium	<b>Zr</b> 40 Zirconium
<b>Nb</b> 41 Niobium	<b>Mo</b> 42 Molybdenum
<b>Rh</b> 45 Rhodium	<b>Ru</b> 44 Ruthenium
<b>Ru</b> 44 Ruthenium	<b>Rh</b> 45 Rhodium
<b>Os</b> 76 Osmium	<b>Ir</b> 77 Iridium
<b>Pt</b> 78 Platinum	<b>Au</b> 79 Gold
<b>Hg</b> 80 Mercury	<b>Tl</b> 81 Thallium
<b>Pb</b> 82 Lead	<b>Bi</b> 83 Bismuth
<b>Po</b> 84 Polonium	<b>At</b> 85 Astatine
<b>Rn</b> 86 Radon	<b>Uuo</b> 118 Ununoctium
<b>Lu</b> 71 Lutetium	<b>Hf</b> 72 Hafnium
<b>Ta</b> 73 Tantalum	<b>W</b> 74 Tungsten
<b>Re</b> 75 Rhenium	<b>Os</b> 76 Osmium
<b>Ir</b> 77 Iridium	<b>Pt</b> 78 Platinum
<b>Au</b> 79 Gold	<b>Hg</b> 80 Mercury
<b>Tl</b> 81 Thallium	<b>Pb</b> 82 Lead
<b>Bi</b> 83 Bismuth	<b>Po</b> 84 Polonium
<b>At</b> 85 Astatine	<b>Rn</b> 86 Radon
<b>Uuo</b> 118 Ununoctium	<b>Uuo</b> 118 Ununoctium
<b>La</b> 57 Lanthanum	<b>Ce</b> 58 Cerium
<b>Pr</b> 59 Praseodymium	<b>Nd</b> 60 Neodymium
<b>Pm</b> 61 Promethium	<b>Sm</b> 62 Samarium
<b>Eu</b> 63 Europium	<b>Gd</b> 64 Gadolinium
<b>Tb</b> 65 Terbium	<b>Dy</b> 66 Dysprosium
<b>Ho</b> 67 Holmium	<b>Er</b> 68 Erbium
<b>Tm</b> 69 Thulium	<b>Yb</b> 70 Ytterbium
<b>Lu</b> 71 Lutetium	<b>Yb</b> 70 Ytterbium
<b>Ac</b> 89 Actinium	<b>Th</b> 90 Thorium
<b>Pa</b> 91 Protactinium	<b>U</b> 92 Uranium
<b>Np</b> 93 Neptunium	<b>Pu</b> 94 Plutonium
<b>Am</b> 95 Americium	<b>Cm</b> 96 Curium
<b>Bk</b> 97 Berkelium	<b>Cf</b> 98 Californium
<b>Es</b> 99 Einsteinium	<b>Fm</b> 100 Fermium
<b>Md</b> 101 Mendelevium	<b>No</b> 102 Nobelium

Chemical symbol — **H** — Atomic number

Name — Hydrogen — 1



# ACTIVITY 5: ELEMENTAL DEDUCTION



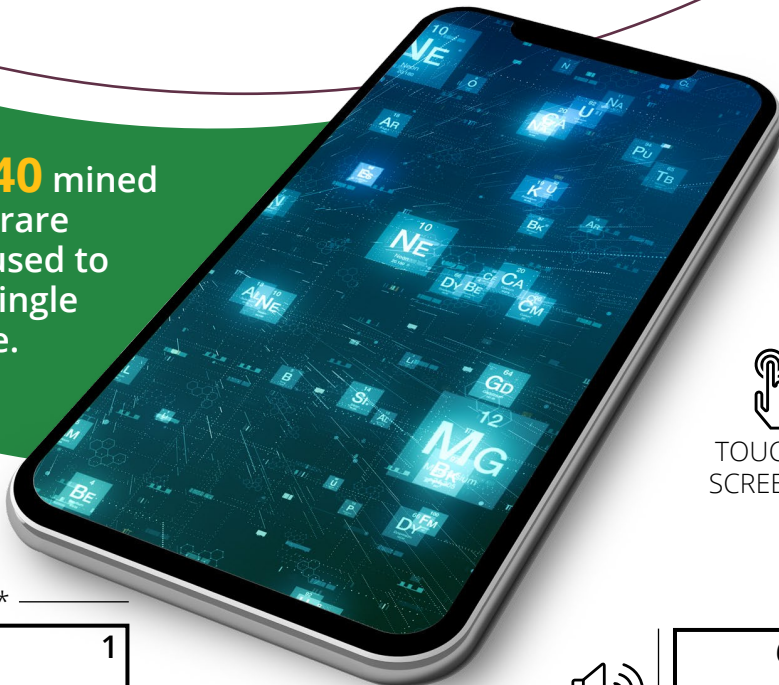
## WHAT DO I DO?

Can you find the element symbol to match the product made by mining? Colour in as many elements as you can and submit to win!

## WHAT DO I NEED?

The Periodic Table  
Online Research

More than **40** mined metals and rare earths are used to produce a single smartphone.



EARBUDS\*  
PHONE CASES\* \_\_\_\_\_

6	1
Carbon	Hydrogen



BATTERY \_\_\_\_\_

13	3	27
Aluminium	Lithium	Cobalt

14	50	19
Silicon	Tin	Potassium

49	13	31
Indium	Aluminium	Gallium



TOUCH SCREEN



SOUND

60	5	28	59
Neodymium	Boron	Nickel	Praseodymium



ELECTRONICS

79	29	47	73	74
Gold	Copper	Silver	Tantalum	Tungsten

## MINING IS ESSENTIAL FOR INNOVATIVE TECHNOLOGY

Canada's mining industry is providing the responsibly-sourced minerals and metals that power the technologies of today and of the future.

\*Oil for these products can also be from non-mined sources.

Resource Credit: Mining Association of Canada | Developed by: Yukon Women in Mining

## QUESTION 1:

What is the Periodic Table?

---



---



---



---



---

## QUESTION 2:

List all the types of technology in your house that have metals in them that were mined - How many can you find?

1	6
2	7
3	8
4	9
5	10

**DON'T FORGET TO SUBMIT BY FRIDAY, MAY 8<sup>TH</sup> AT 5PM!**

**SUBMISSION  
PROCESS**

ON SOCIAL MEDIA:

f@YukonWomenInMining - Virtual Yukon Mining Week Event Page

BY E-MAIL: [submissions@yukonwim.ca](mailto:submissions@yukonwim.ca)

Include Subject Line: Activity Name, Your Name, Your Grade


GR. 4-6  
2

# ACTIVITY 5: ELEMENTAL DEDUCTION



STANLEY CUP

47	28
Silver	Nickel



ZAMBONI

26	13
Iron	Aluminium



HOCKEY SKATES

24	26
Chromium	Iron
6	
Carbon	



Resource Credit: Mining Association of Canada  
Developed by: Yukon Women in Mining

Mining is **responsible** for the most highly coveted hockey trophy in the world.

## STANLEY CUP

Named after the former Governor General of Canada, Lord Stanley of Preston was first awarded to the Montreal Hockey Club in 1893. The original Cup was made of silver, while the current Cup is made of a silver and nickel alloy.

### QUESTION 3:

Which of the following is an element?  
(Circle the correct answer)

- A) WATER      B) HEAT      C) VOLUME      D) GOLD

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GR. 4-6  
3

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# ACTIVITY 5: ELEMENTAL DEDUCTION



SHUTTLE BODY

13	22
Aluminium	Titanium



THERMAL PROTECTION

14	6
Silicon	Carbon

74	73
Tungsten	Tantalum



FUEL

6	1
Carbon	Hydrogen



ROCKET ENGINES

29	41
Copper	Niobium



OPTICS

58
Cerium



CONTROL SYSTEM

14	32
Silicon	Germanium

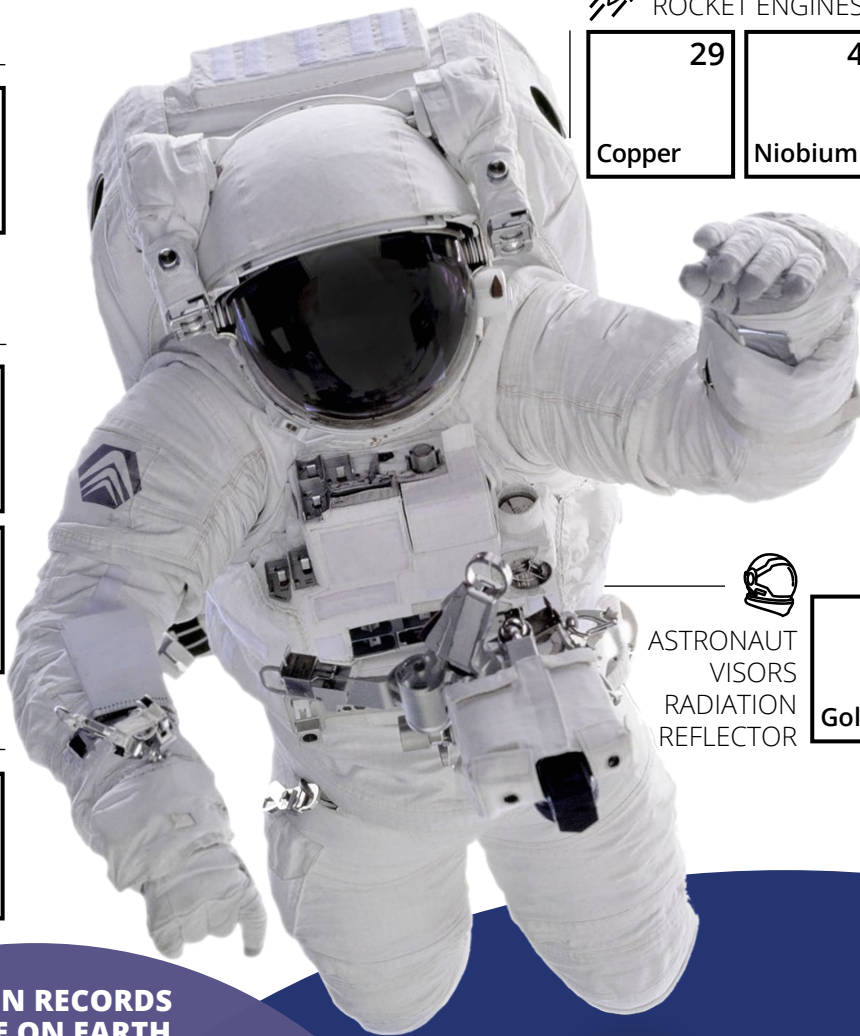


ASTRONAUT VISORS  
RADIATION REFLECTOR

79
Gold

ENERGY SOURCE

92
Uranium



## GOLDEN RECORDS OF LIFE ON EARTH

NASA launched the Voyager Golden Records – two gold-plated copper phonograph records containing sounds and image from Earth – into space in 1977. Intended for future spacefarers or intelligent lifeforms, the records contain greetings in 55 languages and sounds ranging from rain and thunder to birds, frogs, laughter and children.

The International Space Station orbits Earth **every 92 minutes**. That's 15-16 sunrises and sunsets a day.

Resource Credit: Mining Association of Canada  
Developed by: Yukon Women in Mining

## QUESTION 4:

Which Yukon company is currently mining for copper?

(Circle the correct answer)



HINT: Search activity above for a clue.

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GR. 4-6  
4

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# ACTIVITY 6: MINING FOR ENERGY



Your home is “on the grid” – connected to electrical power from Yukon’s Hydro Dams. You are interested in supplementary energy using one of two renewable energy options made from mining materials. Choose from one of the two power options and fill in the blanks with the element name and symbol, use spare paper if you need more room.

## WHAT DO I NEED?

The Periodic Table

Online Research

More than **220 tonnes** of coal is required to build a wind turbine

BATTERY ENERGY STORAGE

3	28	25
27	6	23

STEEL USED TO BUILD TURBINES

26	6
----	---

BLADES

13
----

CONTROLS

29	14
----	----

MAGNET GENERATION

26	60
5	66

CORROSION PROTECTION

42
30

## WHEN WE EXPLORE FOR MINERALS AND METALS WE ARE FINDING RENEWABLE SOURCES OF ENERGY TOO:

In northern Quebec, Glencore’s Raglan Mine is replacing diesel fuel with wind power. The wind turbine and energy storage facility – the first in Canada – has helped reduce the mine’s greenhouse gas emissions and has the potential to transform the Arctic’s energy landscape.

Developed by: Yukon Women in Mining

Resource Credit: Mining Association of Canada

### QUESTION 1:

What year was the periodic table first developed and by who?

### QUESTION 2:

Name a Yukon company mining company that is exploring for copper?

HINT: The company name is on Activity 7 Resource Tool

### QUESTION 3:

What metals are required for battery energy storage for wind farms?

(Circle the correct answer)

- A) Copper, Silicon, Cobalt, Boron
- B) Molybdenum, Zinc, Iron, Aluminum
- C) Carbon, Zinc, Dysprosium, Iron
- D) Nickel, Lithium, Magnesium, Cobalt

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GR. 4-6  
5

# ACTIVITY 6: MINING FOR ENERGY



## SOLAR PANELS

48	52	42
4	32	31
49	47	14

## CHOICE 2: SOLAR PANELS

14 of the 19 minerals and metals used in solar PV panels come from Canadian mines

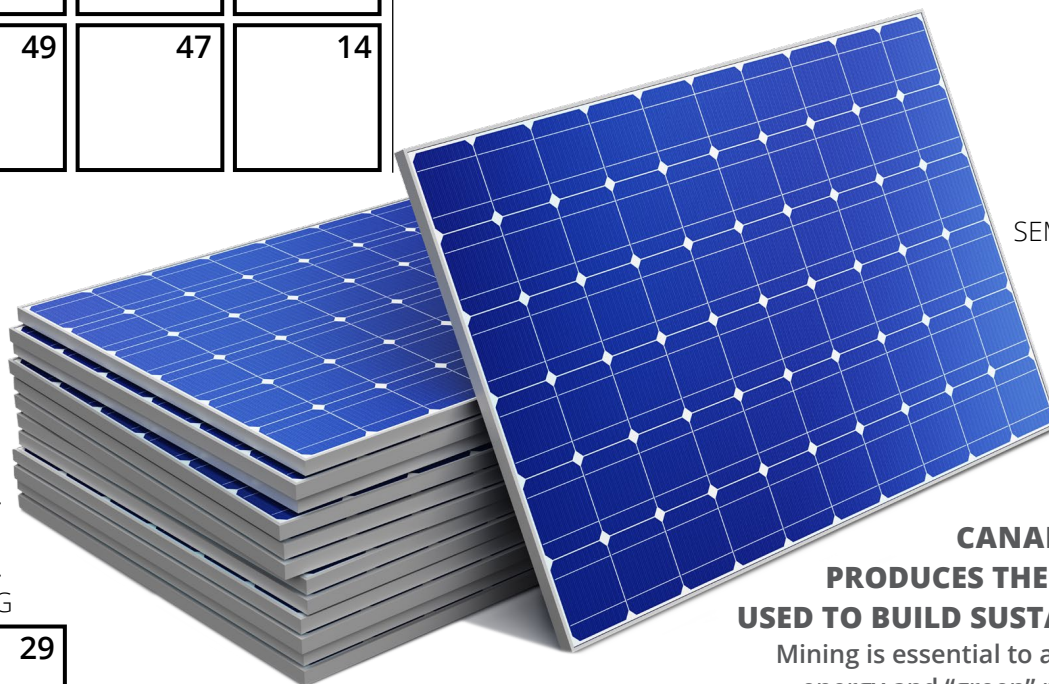
13	22
30	12

FRAME



SEMI-CONDUCTOR

5
15



WIRING

29
----

### CANADA'S MINING INDUSTRY PRODUCES THE MINERALS AND METALS USED TO BUILD SUSTAINABLE TECHNOLOGIES

Mining is essential to a low-carbon future with clean energy and "green" products requiring metals and minerals as building blocks.

Resource Credit: Mining Association of Canada | Developed by: Yukon Women in Mining

### QUESTION 4:

Which side (left or right) of the periodic table are the metals?

- A) Left                      B) Right

### QUESTION 5:

Can you name a solar company in Yukon?

\_\_\_\_\_

### QUESTION 6:

How many of the 19 minerals and metals used in solar PV panels come from Canadian mines?

(Circle the correct answer)

- A) 11                      B) 16  
C) 14                      D) 19

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GR. 4-6  
6

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# ACTIVITY 7: MINING MAKES IT POSSIBLE



## WHAT DO I NEED?

The Periodic Table & Online Research

Explore in your house or yard to find a product made from mining elements, minerals and metals that makes your life possible. Create your own guide!

### BUT... THERE IS 1 RULE!

You must do your own research! Examples from Activity One and Two cannot be used, nor any of the samples found in Mining Association of Canada's 30 Things.

## COMPLETE THE TEMPLATE, OR DRAW YOUR OWN:

- How To:**
- 1) Pick a Product
  - 2) Fill in the template or create your own
  - 3) Minimum Number of Elements: 10
  - 4) Name a Yukon mining or supply/service company connected to your product
  - 5) Have fun!

## BELOW IS A COMPLETED SAMPLE

Yukon Company:  
**WESTERN COPPER AND GOLD**

MONITOR      MONITOR      MONITOR      HOSPITAL BED      HOSPITAL BED

**Cu**<sup>29</sup>      **Au**<sup>79</sup>      **Al**<sup>13</sup>      **C**<sup>6</sup>      **Fe**<sup>26</sup>

Copper      Gold      Aluminium      Titanium      Iron

**Zr**<sup>40</sup>      **Ti**<sup>22</sup>      **Cu**<sup>29</sup>      **Cr**<sup>24      **Si**<sup>14</sup>      **Mn**<sup>28</sup>      **Pb**<sup>82</sup></sup>

Zirconium      Titanium      Copper      Chromium      Silicon      Manganese      Lead

ULTRASOUND MACHINE      ULTRASOUND MACHINE      ULTRASOUND MACHINE      SURGICAL INSTRUMENTS      SURGICAL INSTRUMENTS      SURGICAL INSTRUMENTS

**HOSPITALS**

**MINING'S ROLE IN PREVENTING INFECTIOUS DISEASE**

Hospitals have a potent, new tool in their mission to improve patient health and safety. It also happens to be one of the oldest metals known to man - copper. Increasingly, health facilities are using Antimicrobial Copper to prevent Hospital Acquired Infections, as not only does it continuously kill 99.9% of infectious bacteria, but it also has the potential to significantly reduce the costs of infection control.

Resource Credit: Mining Association of Canada | Developed by: Yukon Women in Mining

### COVID-19 MESSAGE:

If you are exploring beyond your home:

- Ask a parent or guardian for permission and assistance.
- Practice physical / social distancing: explore in your house or yard
- Avoid touching your face when you are out exploring
- Sneeze or cough into your sleeve
- Wash your hands when you get home with soap and water for 20 seconds

# ACTIVITY 7: MINING MAKES IT POSSIBLE



Yukon Company | \_\_\_\_\_

PRODUCT:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SLOGAN:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

↑  
Paragraph connecting the product with mining

**DON'T FORGET TO SUBMIT BY FRIDAY, MAY 8<sup>TH</sup> AT 5PM!**

GR. 4-6  
8

**SUBMISSION  
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# ACTIVITY 8: PERIODIC TABLE SPELLING BEE



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.

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

Resource Credit: Mining Matters

H <sup>1</sup> Hydrogen																	He <sup>2</sup> Helium						
Li <sup>3</sup> Lithium	Be <sup>4</sup> Beryllium																	B <sup>5</sup> Boron	C <sup>6</sup> Carbon	N <sup>7</sup> Nitrogen	O <sup>8</sup> Oxygen	F <sup>9</sup> Fluorine	Ne <sup>10</sup> Neon
Na <sup>11</sup> Sodium	Mg <sup>12</sup> Magnesium																	Al <sup>13</sup> Aluminium	Si <sup>14</sup> Silicon	P <sup>15</sup> Phosphorus	S <sup>16</sup> Sulfur	Cl <sup>17</sup> Chlorine	Ar <sup>18</sup> Argon
K <sup>19</sup> Potassium	Ca <sup>20</sup> Calcium	Sc <sup>21</sup> Scandium	Ti <sup>22</sup> Titanium	V <sup>23</sup> Vanadium	Cr <sup>24</sup> Chromium	Mn <sup>25</sup> Manganese	Fe <sup>26</sup> Iron	Co <sup>27</sup> Cobalt	Ni <sup>28</sup> Nickel	Cu <sup>29</sup> Copper	Zn <sup>30</sup> Zinc	Ga <sup>31</sup> Gallium	Ge <sup>32</sup> Germanium	As <sup>33</sup> Arsenic	Se <sup>34</sup> Selenium	Br <sup>35</sup> Bromine	Kr <sup>36</sup> Krypton						
Rb <sup>37</sup> Rubidium	Sr <sup>38</sup> Strontium	Y <sup>39</sup> Yttrium	Zr <sup>40</sup> Zirconium	Nb <sup>41</sup> Niobium	Mo <sup>42</sup> Molybdenum	Tc <sup>43</sup> Technetium	Rh <sup>44</sup> Ruthenium	Ru <sup>45</sup> Rhodium	Pd <sup>46</sup> Palladium	Ag <sup>47</sup> Silver	Cd <sup>48</sup> Cadmium	In <sup>49</sup> Indium	Sn <sup>50</sup> Tin	Sb <sup>51</sup> Antimony	Te <sup>52</sup> Tellurium	I <sup>53</sup> Iodine	Xe <sup>54</sup> Xenon						
Cs <sup>55</sup> Caesium	Ba <sup>56</sup> Barium	Lu <sup>71</sup> Lutetium	Hf <sup>72</sup> Hafnium	Ta <sup>73</sup> Tantalum	W <sup>74</sup> Tungsten	Re <sup>75</sup> Rhenium	Os <sup>76</sup> Osmium	Ir <sup>77</sup> Iridium	Pt <sup>78</sup> Platinum	Au <sup>79</sup> Gold	Hg <sup>80</sup> Mercury	Tl <sup>81</sup> Thallium	Pb <sup>82</sup> Lead	Bi <sup>83</sup> Bismuth	Po <sup>84</sup> Polonium	At <sup>85</sup> Astatine	Rn <sup>86</sup> Radon						
Fr <sup>87</sup> Francium	Ra <sup>88</sup> Radium	Lr <sup>103</sup> Lawrencium	Rf <sup>104</sup> Rutherfordium	Db <sup>105</sup> Dubnium	Sg <sup>106</sup> Seaborgium	Hs <sup>107</sup> Bohrium	Bh <sup>108</sup> Hassium	Mt <sup>109</sup> Meitnerium	Ds <sup>110</sup> Darmstadtium	Rg <sup>111</sup> Roentgenium	Cn <sup>112</sup> Copernicium	Uut <sup>113</sup> Ununtrium	Fl <sup>114</sup> Flerovium	Uup <sup>115</sup> Ununpentium	Lv <sup>116</sup> Livermorium	Uus <sup>117</sup> Ununseptium	Uuo <sup>118</sup> Ununoctium						
La <sup>57</sup> Lanthanum	Ce <sup>58</sup> Cerium	Pr <sup>59</sup> Praseodymium	Nd <sup>60</sup> Neodymium	Pm <sup>61</sup> Promethium	Sm <sup>62</sup> Samarium	Eu <sup>63</sup> Europium	Gd <sup>64</sup> Gadolinium	Tb <sup>65</sup> Terbium	Dy <sup>66</sup> Dysprosium	Ho <sup>67</sup> Holmium	Er <sup>68</sup> Erbium	Tm <sup>69</sup> Thulium	Yb <sup>70</sup> Ytterbium										
Ac <sup>89</sup> Actinium	Th <sup>90</sup> Thorium	Pa <sup>91</sup> Protactinium	U <sup>92</sup> Uranium	Np <sup>93</sup> Neptunium	Pu <sup>94</sup> Plutonium	Am <sup>95</sup> Americium	Cm <sup>96</sup> Curium	Bk <sup>97</sup> Berkelium	Cf <sup>98</sup> Californium	Es <sup>99</sup> Einsteinium	Fm <sup>100</sup> Fermium	Md <sup>101</sup> Mendelevium	No <sup>102</sup> Nobelium										

### THREE LETTERS

C At

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### FOUR LETTERS

K I Te

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### FIVE LETTERS

S Po O N

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### SIX LETTERS

Cl O U Dy

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**DON'T FORGET TO SUBMIT BY FRIDAY, MAY 8<sup>TH</sup> AT 5PM!**

**SUBMISSION  
PROCESS**

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GR. 4-6  
9

# VIRTUAL YUKON MINING WEEK

MAY 4<sup>TH</sup> - MAY 8<sup>TH</sup>

PRESENTED  
IN PARTNERSHIP



Yukon

## ACTIVITY 9: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING

CONTEST OPEN TO  
GRADES 7-9

GRAND PRIZE ENTRIES  
OPEN TO ALL

### HOW TO PLAY!

- 1 Complete the Activity and Answer the Questions
- 2 Submit Your Activity to Enter into the Grades 7-9 draw by Friday, May 8<sup>th</sup> at 5PM
- 3 Not in Grades 7-9? No problem! Complete the Activity and be entered into the Grand Prize!  
*The more activities you complete, the greater your chances of winning!*
- 4 Winners will be posted on the [f @YukonWomenInMining](#) - Virtual Yukon Mining Week Event Page and contacted from May 11<sup>th</sup> - 15<sup>th</sup>

### SUBMISSION:

#### ON SOCIAL MEDIA:

[f @YukonWomenInMining](#) -  
Virtual Yukon Mining Week Event Page  
#VYMW2020

BY E-MAIL: [submissions@yukonwim.ca](mailto:submissions@yukonwim.ca)

#### INCLUDE SUBJECT LINE:

Activity Name, Your Name, Your Grade

i.e.: Activity 9: Explore for Knowledge, David Ross, Grade 8

### INCREASE YOUR CHANCES OF WINNING

Complete more activities!

Every completed activity is another time  
your name will be in the draw.

### GRADE GROUPS:

K-3	4-6
7-9	10-12

# RESOURCE TOOL

ACTIVITY 9: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING  
ACTIVITY 10: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING



Mining's presence and importance permeates the very bedrock of our daily lives and has been part of culture, history and identity as Yukoners for more than a century. Every day in Yukon we celebrate mining and can see it – on our license plates, in our attractions, in our connection to each other, and in our commitment to caring for each other.



PLEASE PRINT THIS RESOURCE TOOL TO COMPLETE ACTIVITIES 9 - 10

**HAVE YOU BEEN TO EVERY YUKON COMMUNITY?  
HAVE YOU SEEN AN EXPLORATION CAMP?  
NOW IS YOUR CHANCE TO VISIT VIRTUALLY!**

Using an online resource known as “VRify Technology Inc” anyone can safely visit a Yukon community and Yukon exploration project from their home, their office, or on the go – whether they are in Old Crow or Paris.

This new technology is part of a 3-year project – launched in 2019 by Yukon Mining Alliance - to connect investors and communities with information about Yukon and leaders in mineral exploration and mining.

Virtual Yukon Mining Week Activities 9 & 10 are a sneak peek at how this technology can enhance mineral investment attraction and increase awareness and understanding of a mineral project.

**Safety Briefing for:  
Exploration Camps & Operating Mines**

To visit an exploration camp and operating mine, you would first have to ensure you have the correct personal protective equipment (PPE), have permission to be there, and participate in on-site health and safety orientations. All sites have safety protocols and procedures safety personnel, first aid, muster stations, and much more that keeps workers safe.

**Safety Briefing for:  
Virtual Yukon Mining Tours:**

To visit VIRTUAL exploration camps and explore Yukon communities today, you will need:

- Permission to use an online device
- Practice safe online researching and use
- Screen time breaks
- Tablet, Smartphone or Computer
- Comfortable seat
- Good writing utensil
- Explorers Mindset!

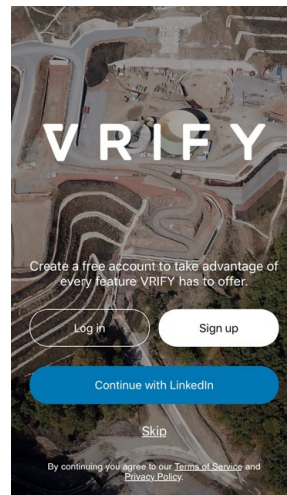
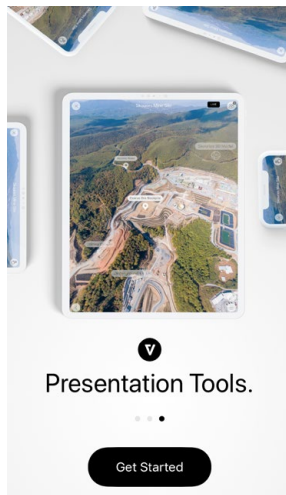
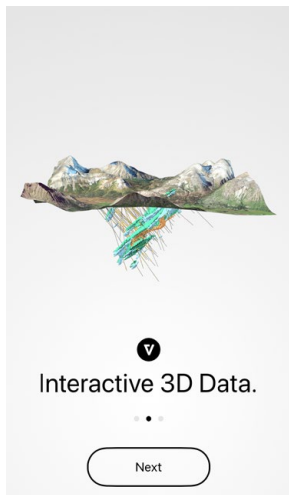
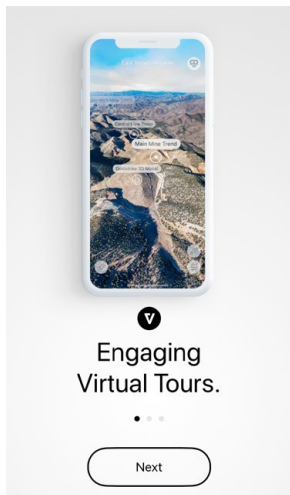


### CHOOSE YOUR "TOUR TOOL"



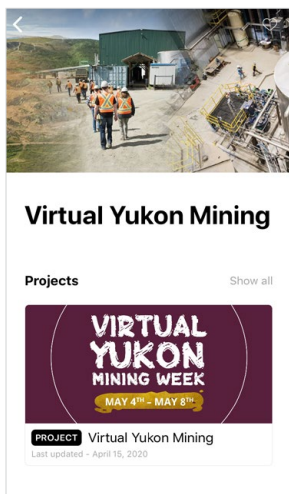
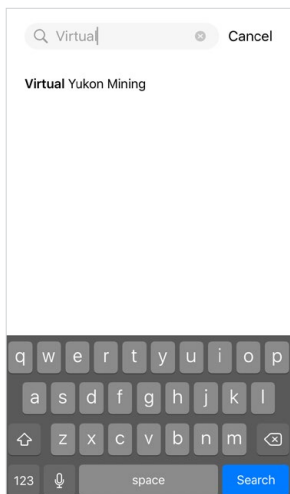
#### OPTION 1: FREE APP

- 1 Go to the APP store on your device
- 2 Search: VRify Technology Inc.
- 3 Download & open VRIFY app
- 4 Screens you will see: Click Next



You can click **Skip**  
- OR -  
You can **Sign Up**  
(You will need a valid e-mail address)

- 5 On the next screen – you can Search:



Enter: "Virtual"  
Select: **Virtual Yukon Mining**  
Click Projects:  
**Virtual Yukon Mining Week**

- 6 YOU'RE READY TO EXPLORE



*Problems finding the app?*  
*Check your spelling: VRIFY (not verify).*  
*Still can't find it? Try Option 2!*

# RESOURCE TOOL

## ACTIVITY 9 AND ACTIVITY 10



### OPTION 2: FREE WEBSITE LINK

- 1 Open web browser (*Google Chrome recommended*)
- 2 Go to: [www.YukonWIM.ca/vym-tours/](http://www.YukonWIM.ca/vym-tours/)
- 3 Increase window to Full Screen by click on "Open in Full Screen"

YOU'RE READY TO EXPLORE!



### TOUR MAP LEGEND

- Click here to travel to the next site
- Click to Watch a Video
- Click to Get Information or "Clues"
- Click to See an Image
- Click to open a PDF (*Acrobat Reader needed*)
- Place Marker on the Map (*not "clickable"*)

### EXPLORING:

The goal of this activity is to explore Yukon communities and Yukon mineral exploration projects! If you can't find an answer, keep looking, ask a friend or family member, or reach out to Yukon Women in Mining by e-mail (*but we won't reveal the clues!*).

### Have fun!

**Need Help?** We have provided you with all the tools and information you need, but if you run into challenges, please e-mail us at [Projects@YukonWIM.ca](mailto:Projects@YukonWIM.ca).

# ACTIVITY 9: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING



## COMMUNITY SECTION

This section will take you on a tour around Yukon to visit communities virtually.



### VISIT: YOUR YUKON COMMUNITY

1

What is the name of your community?

---

2

What is the name of your school?

---

3

Name the Yukon First Nation Traditional Territory that community resides in:  
*(name only one if more than one)*

---

4

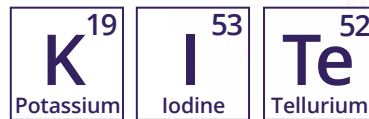
**YMW CODE:** Each community has a secret code word with unique spelling – what's yours?

a. YMW CODE Word:

---

b. What are the Periodic Elements of Your Code  
*(fill in as many boxes as you need and you will need a copy of periodic table)*

SAMPLE: KTe



--	--	--	--	--	--	--	--	--	--

**DON'T FORGET TO SUBMIT BY FRIDAY, MAY 8<sup>TH</sup> AT 5PM!**

GR. 7-9  
1

**SUBMISSION  
PROCESS**

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## ACTIVITY 9: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING



### VIDEO SECTION

The video links hidden in the communities below. You will need access to viewing YouTube.



## VISIT: CARMACKS

BACKGROUND

*Yukon Women in Mining hosts an educational and interactive community event, called Yukon Mining Days. Check out a video from Yukon Mining Days "Carmacks" to find the answers to the next section of questions.*



### VYMW VIDEO CLUE 1: Watch Yukon Mining Days Carmacks: **Watch Carefully to Answer the Below Questions**

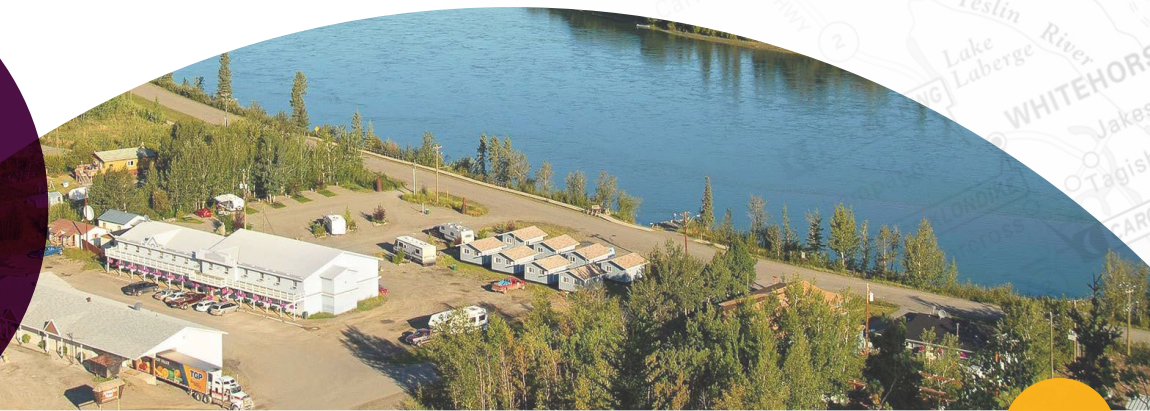
What mining company name do you see on many of the hats?

There is a race – what kind of equipment are they using? (Hint: Time 1:39)

Kids are making buttons of a famous woman. What is her name and why is she famous?

FOR MORE VIDEOS BY YUKON  
WOMEN IN MINING:

Visit [YukonWIM.ca](http://YukonWIM.ca)



**DON'T FORGET TO SUBMIT BY FRIDAY, MAY 8TH AT 5PM!**

GR. 7-9  
3

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BY E-MAIL: [submissions@yukonwim.ca](mailto:submissions@yukonwim.ca)

Include Subject Line: Activity Name, Your Name, Your Grade

# ACTIVITY 9: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING



## DISCOVERY SECTION

Discover key information to understand Yukon's mining industry. You will have to travel to different "Yukon Communities" to find these answers.

### VISIT: 9 YUKON COMMUNITIES



**Q1: What is a public company?**

**Watson Lake**

---

---

---

**Q2: What are the names of the stock markets in Canada (3)?**

**Ross River**

---

---

---

**Q3: What is an exchange symbol or ticker symbol?**

**Mayo**

---

---

---

**Q4: What is mining?**

**Pelly Crossing**

---

---

---

**Q5: What is the Mining Process?**

**Burwash Landing**

---

---

---

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**GR. 7-9  
4**

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# ACTIVITY 9: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING



## EXPLORATION SECTION

Like mineral explorers, you will have to look around and use your knowledge and expertise to find what you are looking for. "Exploration Tips" are just for fun while exploring!

Chose **AT LEAST TWO** of the three Virtual Yukon Exploration Sites and Answer the Below:

### VISIT ROCKHAVEN

What is Rockhaven's full company name?

\_\_\_\_\_  
\_\_\_\_\_

What community is Rockhaven is closest to?

\_\_\_\_\_  
\_\_\_\_\_

What is the name of Rockhaven's deposit (project)?

\_\_\_\_\_  
\_\_\_\_\_

What is Rockhaven's Exchange Symbol?

*Hint: Review "Discovery Q3 to learn about exchange/ticker symbols"*

What minerals is Rockhaven Exploring for?

\_\_\_\_\_  
\_\_\_\_\_

*Tip: Check out the Placer Gold*



### VISIT CASINO PROJECT

What is the company's full name?

\_\_\_\_\_  
\_\_\_\_\_

What can you find in the "Core Shack"?

\_\_\_\_\_  
\_\_\_\_\_

Name 2 areas of the "Proposed Mine Site"

\_\_\_\_\_  
\_\_\_\_\_

In the "Casino Animation" what is the Mine Life  
*(also known as Project Life):*

\_\_\_\_\_  
\_\_\_\_\_

In the "Casino Animation" what are the resources of each of the metals:

Gold: \_\_\_\_\_

Silver: \_\_\_\_\_

Copper: \_\_\_\_\_

Molybdenum: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

*Tip: Check out the Casino 3D Model*

### VISIT BANYAN

What is the name of the their Projects (they have 2)?

\_\_\_\_\_  
\_\_\_\_\_

What piece of equipment are they using to build a road?

\_\_\_\_\_  
\_\_\_\_\_

Who is the CEO of Banyan?

\_\_\_\_\_  
\_\_\_\_\_

Name 2 exploration zones on the Project.

\_\_\_\_\_  
\_\_\_\_\_

What mineral(s) is Banyan exploring for?

\_\_\_\_\_  
\_\_\_\_\_

*Tip: Check out the Banyan 3D Model*



**WANT TO KEEP EXPLORING?**  
CHECK OUT ACTIVITY 10!

GR. 7-9  
5

**DON'T FORGET TO SUBMIT BY FRIDAY, MAY 8TH AT 5PM!**

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# VIRTUAL YUKON MINING WEEK

MAY 4<sup>TH</sup> - MAY 8<sup>TH</sup>

PRESENTED  
IN PARTNERSHIP



Yukon

## ACTIVITY 10: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING

CONTEST OPEN TO  
GRADES 10-12

GRAND PRIZE ENTRIES  
OPEN TO ALL

### HOW TO PLAY!

- 1 Complete the Activity and Answer the Questions
- 2 Submit Your Activity to Enter into the Grades 10-12 draw by Friday, May 8<sup>th</sup> at 5PM
- 3 Not in Grades 10-12? No problem! Complete the Activity and be entered into the Grand Prize!  
*The more activities you complete, the greater your chances of winning!*
- 4 Winners will be posted on the [f @YukonWomenInMining](#) - Virtual Yukon Mining Week Event Page and contacted from May 11<sup>th</sup> - 15<sup>th</sup>

### SUBMISSION:

#### ON SOCIAL MEDIA:

[f @YukonWomenInMining](#) -  
Virtual Yukon Mining Week Event Page  
#VYMW2020

BY E-MAIL: [submissions@yukonwim.ca](mailto:submissions@yukonwim.ca)

#### INCLUDE SUBJECT LINE:

Activity Name, Your Name, Your Grade

i.e.: Activity 10: Explore for Knowledge, Mary Winchester, Grade 10

### INCREASE YOUR CHANCES OF WINNING

Complete more activities!

Every completed activity is another time  
your name will be in the draw.

### GRADE GROUPS:

K-3      4-6  
7-9      10-12



COMMUNITY SECTION

This section will take you on a tour around Yukon to visit communities virtually.

VISIT: YOUR YUKON COMMUNITY



1

What is the name of your community?

---

2

What is the name of your school?

---

3

Name the Yukon First Nation Traditional Territory that community resides in:  
*(name only one if more than one)*

---

4

YMW CODE: Each community has a secret code word with unique spelling – what's yours?

a. YMW CODE Word:

---

b. What are the Periodic Elements of Your Code  
*(fill in as many boxes as you need and you will need a copy of periodic table)*

SAMPLE: KITE

19 <b>K</b>	53 <b>I</b>	52 <b>Te</b>
Potassium	Iodine	Tellurium

--	--	--	--	--	--	--	--	--	--

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GR. 10-12  
1

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# ACTIVITY 10: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING



## VIDEO SECTION

The video links hidden in the communities below. You will need access to viewing YouTube.

## VISIT: DAWSON CITY

BACKGROUND

A series of videos were created to share a unique part of Yukon's identity and culture, as part of our past, our daily lives and our future. Watch this video and listen carefully for the answers to these questions.

### YVMW VIDEO CLUE 2: Watch It's In Our Daily Lives #ItsInOurVeins Listen Carefully to Answer the Below Questions.

The sentence is the clue to what you are trying to identify in the video.

What kind of mining is featured in this video?

PLACER MINING

HARD-ROCK MINING?

When it says: "You have seen what they can build"

What is the historic structure? Fill in the Blank: \_\_\_\_\_ No. 4

When it says "You have marveled at their discoveries"

A) What did they discover while mining? \_\_\_\_\_

B) Name the field of scientific study for this type of discovery. Fill in the Blank: P \_\_\_\_\_

When it says "You have shared in their history"

What is the historic structure? Fill in the Blank: S. \_\_\_\_\_

When it says "You can see what can be created from their determination"

What has been created (Hint: what are they mining for?): \_\_\_\_\_

How long have they been exploring? \_\_\_\_\_

FINISH THIS SENTENCE:

They are i) \_\_\_\_\_, ii) \_\_\_\_\_, iii) \_\_\_\_\_ (3 words)

They are Yukon \_\_\_\_\_ (2 words)

FOR MORE #ITSINOURVEINS VIDEOS:  
Visit [www.kpma.ca](http://www.kpma.ca)

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GR. 10-12  
3

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# ACTIVITY 10: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING



## DISCOVERY SECTION

Discover key information to understand Yukon's mining industry. You will have to travel to different "Yukon Communities" to find these answers.

### VISIT: 9 YUKON COMMUNITIES

**Q6:** What are the stages of Mining?

Haines Junction

---

---

---

**Q7:** Why do we need mining?

Teslin

---

---

---

**Q8:** What is PPE and why do we need it?

Old Crow

---

---

---

**Q9:** What are the two types of mining?

Faro

---

---

---

**Q10:** In hardrock (quartz) mining, you can access minerals two ways, what are they?

Carcross

---

---

---

**DON'T FORGET TO SUBMIT BY FRIDAY, MAY 8<sup>TH</sup> AT 5PM!**

GR. 10-12  
4

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# ACTIVITY 10: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING



## EXPLORATION SECTION

Like mineral explorers, you will have to look around and use your knowledge and expertise to find what you are looking for. "Exploration Tips" are just for fun while exploring!

Chose **AT LEAST TWO** of the three Virtual Yukon Exploration Sites and Answer the Below:

### VISIT METALLIC MINERALS

What is the name of the company's project?

---

---

What is the name of the Highway that leads to the project?

---

---

In the "Corporate Video," what community do they show as closest to?

---

---

In the "Corporate Video," what mine are the close to?

---

---

Over the past 100 years, how many ounces of high-grade silver have been produced?

---

---



### VISIT FIREWEED ZINC

What is the name of Fireweed Zinc's Project

---

---

What are the names of the two deposits?

---

---

What two minerals are Fireweed Zinc exploring for?

---

---

How many people are in the Core Shack & what careers would they have?

---

---

What road leads to the Fireweed Zinc exploration site?

---

---

*Tip: Check out the Tom & Jason 3D Model*



### VISIT ATAC RESOURCES

What are the three Projects that ATAC Resources is exploring:

---

---

What minerals are they exploring for?

---

---

At the Nadaleen Camp, what is on the walls of the Geology Office?

How long the ATAC Property in kilometers (KMs)?

---

---

What are the names of the two airstrips?

---

---

*Tip: Explore the mountains to check out the views at Conrad, Sunrise and Orion!*



**WANT TO KEEP EXPLORING?**  
CHECK OUT ACTIVITY 9!

**DON'T FORGET TO SUBMIT BY FRIDAY, MAY 8<sup>TH</sup> AT 5PM!**

GR. 10-12  
5

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# BONUS! ACTIVITY 11 FOR GRADES 7-12: YUKON PLACER MINING REGULATIONS & RECLAMATION

VIRTUAL  
YUKON  
MINING WEEK

MAY 4<sup>TH</sup> – MAY 8<sup>TH</sup>



## Complete this activity and submit for Grand Prize Entry

Placer gold is gold that can be recovered from gravels. Placer miners use three things to extract the gold from gravels: water, motion and gravity. No chemicals are used in the mining process of placer gold, except for fuel in engines and generators. The machine that washes gold-bearing gravel is called a sluice plant, and it works like a big washing machine: the gold is very heavy and gets trapped in the bottom of the sluice plant as gravel and water flows over top. This is how miners collect the gold. Once the gravels have been washed, the miners have to perform reclamation activities.

In 2018, placer miners recovered roughly 70,000 ounces of gold. As gold is very heavy, 70,000 ounces is about the same as 2,200 kilograms; equivalent to the weight of an average pickup truck but much smaller in size. This amount of gold is valued at about \$95 million, with the majority of that money being spent on fuel, equipment, camp and other operating expenses. A 2017 survey showed Yukon placer miners spend 87% of their annual expenses in the territory, supporting Yukon families and businesses.

But mining the gold is only part of the story, reclamation is also a necessary part of the package. Mining reclamation is the process of restoring land that has been mined to a natural state or for another purpose or use. The process of reclamation occurs during mining activities (called “progressive reclamation”) and is finished once mining is completed; but the planning of mine reclamation activities happen prior to an operation being permitted or started. Reclamation plans are an important part of making sure mines are left in a way that encourages plant growth and habitat development for moose, birds and other animals that are native to the Yukon. Because placer operators only use motion, gravity and water to extract gold, reclamation can be very effective in a relatively short amount of time.

**So, let's see what you know about placer mining and reclamation in Yukon!**

 *Tip: Check out the Resource for Links to helpful sites*

BACKGROUND  
TOOL

GR. 7-12  
1



## BONUS! ACTIVITY 11 FOR GRADES 7-12: YUKON PLACER MINING REGULATIONS & RECLAMATION

**VIRTUAL  
YUKON  
MINING WEEK**  
MAY 4<sup>TH</sup> – MAY 8<sup>TH</sup>

### EXPLORING FOR INFORMATION

<https://goldprice.org/>

<https://www.goldrushnuggets.com/tyofgopl.html>

<http://www.emr.gov.yk.ca/mining/placermining.html>

[http://www.gov.yk.ca/legislation/acts/plmi\\_c.pdf](http://www.gov.yk.ca/legislation/acts/plmi_c.pdf)

[http://www.gov.yk.ca/legislation/regs/oic2003\\_059.pdf](http://www.gov.yk.ca/legislation/regs/oic2003_059.pdf) (page 20)

[http://www.emr.gov.yk.ca/mining/pdf/mlur\\_placer\\_operating\\_conditions.pdf](http://www.emr.gov.yk.ca/mining/pdf/mlur_placer_operating_conditions.pdf)

<https://www.yesab.ca/about-yesab/yesab/>

[http://www.yukonwaterboard.ca/forms/Information%20Sheets/Placer\\_InfoSheet\\_14Nov2015%20.pdf](http://www.yukonwaterboard.ca/forms/Information%20Sheets/Placer_InfoSheet_14Nov2015%20.pdf)

[http://www.yukonwaterboard.ca/forms\\_info.htm#pm](http://www.yukonwaterboard.ca/forms_info.htm#pm)

[http://www.emr.gov.yk.ca/mining/placer\\_mlu\\_application.html](http://www.emr.gov.yk.ca/mining/placer_mlu_application.html)

<http://www.emr.gov.yk.ca/mining/pdf/indian-river-wetlands-info-sheet-20200203.pdf>

<https://www.kpma.ca/>

<https://yukon.ca/en/doing-business/licensing/prepare-project-proposal-class-4-placer-activities>

[http://www.emr.gov.yk.ca/mining/pdf/handbook\\_placer\\_regulations.pdf](http://www.emr.gov.yk.ca/mining/pdf/handbook_placer_regulations.pdf)

<https://yukon.ca/sites/yukon.ca/files/env/env-preferred-practices-works-affecting-yukon-waters.pdf>

<https://yukon.ca/sites/yukon.ca/files/emr/emr-placer-guidebook-mitigation-measures.pdf>

[http://www.emr.gov.yk.ca/mining/pdf/placer\\_mining\\_permitting\\_roadmap.pdf](http://www.emr.gov.yk.ca/mining/pdf/placer_mining_permitting_roadmap.pdf)

<http://www.emr.gov.yk.ca/mining/leckie.html>

<https://yukon.ca/en/news/leckie-awards-recognize-excellence-mining-practices>

Links also available online at [www.YukonWIM.ca/vym-activities/](http://www.YukonWIM.ca/vym-activities/)

# BONUS! ACTIVITY 11 FOR GRADES 7-12: YUKON PLACER MINING REGULATIONS & RECLAMATION

**VIRTUAL  
YUKON  
MINING WEEK**  
MAY 4<sup>TH</sup> – MAY 8<sup>TH</sup>

PLEASE USE THE BLANK NOTE SHEETS  
TO ANSWER ALL THE QUESTIONS.

## EXPLORE ONLINE TO FIND THE ANSWERS TO THESE YUKON PLACER QUESTIONS

- Q1:** In April 1915, the gold price was \$19.25 per ounce in U.S. dollars. This is equivalent to about \$500 USD today. Approximately, what is the current price of gold today?
- Q2:** What is the difference between quartz and placer mining?
- Q3:** Yukon placer mining operators have been required to reclaim their mining activities since 1999. Part 2 of the Yukon Placer Mining Act deals with mining land use and the need to reclaim. What is the specific purpose of this Part?
- Q4:** What Board carries out environmental and socio-economic reviews/assessments of proposed exploration and mining projects?
- Q5:** Approximately how many placer operations are there in Yukon?
- Q6:** How many types of placer mining operations are there in Yukon?
- Q7:** Once the placer mining project has been reviewed by YESAB, the next step is to acquire a placer mining land use approval. Depending on the Class of placer operation they may also require a water license to operate. At what class level does a placer operation need a water licence?
- Q8:** How often does a placer operation with a water license have to report to the Yukon Government on their activities?
- Q9:** Placer miners who show excellence in environmental stewardship, outstanding social responsibility, and leadership and innovation in overall process are recognized every year by the Government of Yukon. What are these awards called?
- Q10:** Name one placer miner that has won the Robert E. Leckie Award in the past.

## YUKON PLACER RECLAMATION – TRUE OR FALSE QUESTIONS

- Q1:** All placer mining is done in creeks and rivers.
- Q2:** Placer mining can yield gold dust, flakes or nuggets.
- Q3:** Placer mining reclamation is only needed if the operator feels it is necessary.
- Q4:** There are 5 classes of placer mining operations.
- Q5:** The Placer Mining Land Use Regulation came into effect in 2005.
- Q6:** Fish habitat and vegetation are two reclamation areas that placer miners have to address.
- Q7:** There are about 75 placer mining operations in Yukon.
- Q8:** Placer mines don't need a water license as long as they are careful with how much water they use.
- Q9:** YESAB can recommend additional reclamation requirements to the minimum standard.
- Q10:** The public is not allowed to participate in environmental and socio-economic reviews (by YESAB).
- Q11:** The Robert E. Leckie Awards honor those who go above and beyond in reclamation efforts at their placer (and quartz) mining operations.

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**GR. 7-12  
3**

**ACTIVITY NAME:**

**YOUR NAME:**

**YOUR GRADE:**



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**VIRTUAL  
YUKON  
MINING WEEK**

**MAY 4<sup>TH</sup> – MAY 8<sup>TH</sup>**

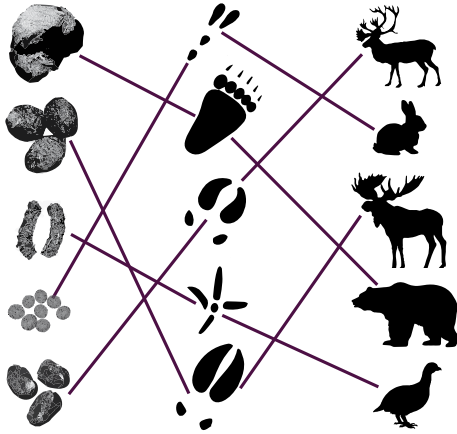
**ANSWER KEY FOR  
EDUCATORS**

# GRADES K-3: ANSWER KEY

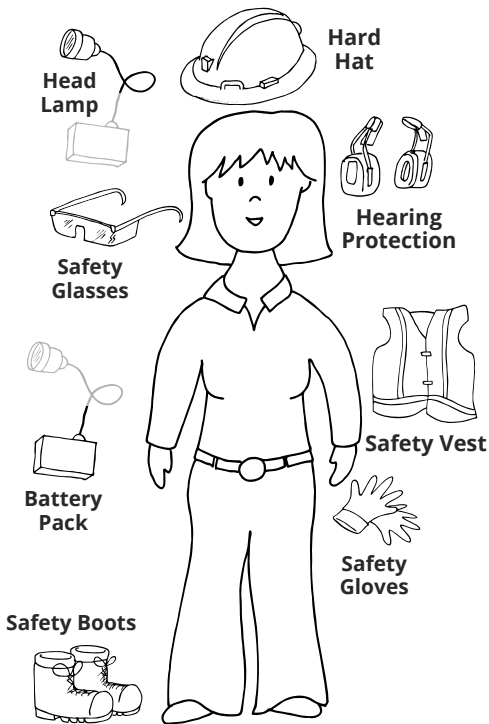


## ACTIVITY 2: EXPLORE MINERALS, METALS AND MINING

### 1: WHO POOPED & WHERE DID THEY GO?



### 3: SAFETY DRESS UP



## ACTIVITY 3: FOSSIL TREASURES FROM FROZEN GROUND: ICE AGE CREATURES



- 6** WOOLLY MAMMOTHS
- 3** SCIMITAR CATS
- 13** STEPPE BISON

### LICENSE PLATE



## ACTIVITY 4: ARCHAEOLOGICAL ADDITION

### QUESTION: What is an Archaeologist?

A person who studies human history and prehistory through the excavation of sites and the analysis of artifacts and other physical remains. (Answers may vary)

# GRADES K-3: ANSWER KEY



$$5 \text{ coins} + 0 \text{ coins} = 5$$

$$6 \text{ coins} + 5 \text{ coins} = 11$$

$$7 \text{ coins} + 6 \text{ coins} = 13$$

$$5 \text{ coins} + 5 \text{ coins} = 10$$

$$4 \text{ coins} + 4 \text{ coins} = 8$$

## ARCHAEOLOGIST'S DIG SUDOKU


Name 5 things that a Yukon Archeologist might find?

SAMPLE ANSWERS

- Arrowheads
  - Spears
  - Coins
  - Human Bones
  - Ancient Campfires
  - Ancient House/Homes
- (answers may vary)



## ACTIVITY 5: ELEMENTAL DEDUCTION

**BATTERY**

Al <sup>13</sup> Aluminium	Li <sup>3</sup> Lithium	Co <sup>27</sup> Cobalt
Si <sup>14</sup> Silicon	Sn <sup>50</sup> Tin	K <sup>19</sup> Potassium
In <sup>49</sup> Indium	Al <sup>13</sup> Aluminium	Ga <sup>31</sup> Gallium

**TOUCH SCREEN**

**SOUND**

Nd <sup>60</sup> Neodymium	B <sup>5</sup> Boron	Ni <sup>28</sup> Nickel	Pr <sup>59</sup> Praseodymium
-------------------------------	-------------------------	----------------------------	----------------------------------

**ELECTRONICS**

Au <sup>79</sup> Gold	Cu <sup>29</sup> Copper	Ag <sup>47</sup> Silver	Ta <sup>73</sup> Tantalum	W <sup>74</sup> Tungsten
--------------------------	----------------------------	----------------------------	------------------------------	-----------------------------

**EARBUDS\*  
PHONE CASES\***

C <sup>6</sup> Carbon	H <sup>1</sup> Hydrogen
--------------------------	----------------------------

**STANLEY CUP**

Ag <sup>47</sup> Silver	Ni <sup>28</sup> Nickel
----------------------------	----------------------------

**HOCKEY SKATES**

Cr <sup>24</sup> Chromium	Fe <sup>26</sup> Iron
C <sup>6</sup> Carbon	

**ZAMBONI**

Fe <sup>26</sup> Iron	Al <sup>13</sup> Aluminium
--------------------------	-------------------------------

**SHUTTLE BODY**

Al <sup>13</sup> Aluminium	Ti <sup>22</sup> Titanium
-------------------------------	------------------------------

**THERMAL PROTECTION**

Si <sup>14</sup> Silicon	C <sup>6</sup> Carbon
W <sup>74</sup> Tungsten	Ta <sup>73</sup> Tantalum

**FUEL**

C <sup>6</sup> Carbon	H <sup>1</sup> Hydrogen
--------------------------	----------------------------

**ROCKET ENGINES**

Cu <sup>29</sup> Copper	Nb <sup>41</sup> Niobium
----------------------------	-----------------------------

**OPTICS**

Ce <sup>58</sup> Cerium
----------------------------

**CONTROL SYSTEM**

Si <sup>14</sup> Silicon	Ge <sup>32</sup> Germanium
-----------------------------	-------------------------------

**ASTRONAUT VISORS  
RADIATION REFLECTOR**

Au <sup>79</sup> Gold
--------------------------

**ENERGY SOURCE**

U <sup>92</sup> Uranium
----------------------------

### QUESTION 1:

A table of chemical elements arranged in order of atomic number. (Answers may vary)

### QUESTION 2:

#### SAMPLE ANSWERS

- |                   |                  |
|-------------------|------------------|
| Currency          | Game Devices     |
| Computers         | Personal Hygiene |
| Television        | Batteries        |
| Smartphone        | Sports Equipment |
| All appliances    | Electricity      |
| Food Processing   | Vehicles         |
| Cleaning Products |                  |

(Answers may vary)

### QUESTION 3: D

### QUESTION 4: B



## ACTIVITY 6: MINING FOR ENERGY



BATTERY ENERGY STORAGE

<b>Li</b> Lithium 3	<b>Ni</b> Nickel 28	<b>Mg</b> Nickel 25
<b>Co</b> Cobalt 27	<b>C</b> Carbon 6	<b>V</b> Vanadium 23
<b>Fe</b> Iron 26	<b>C</b> Carbon 6	

STEEL USED TO BUILD TURBINES

BLADES

<b>Al</b> Aluminium 13
------------------------------

CORROSION PROTECTION

<b>Mo</b> Molybdenum 42
<b>Zn</b> Zinc 30

CONTROLS

<b>Cu</b> Copper 29	<b>Si</b> Silicon 14
---------------------------	----------------------------

MAGNET GENERATION

<b>Fe</b> Iron 26	<b>Nd</b> Neodymium 60
<b>B</b> Boron 5	<b>Dy</b> Dysprosium 66

SOLAR PANELS

<b>Cd</b> Cadmium 48	<b>Te</b> Tellurium 52	<b>Mo</b> Molybdenum 42
<b>Be</b> Beryllium 4	<b>Ge</b> Germanium 32	<b>Ga</b> Gallium 31
<b>In</b> Indium 49	<b>Ag</b> Silver 47	<b>Si</b> Silicon 14

FRAME

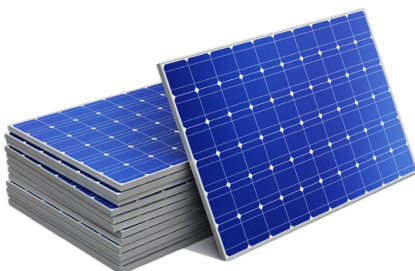
<b>Al</b> Aluminium 13	<b>Ti</b> Titanium 22
<b>Zn</b> Zinc 30	<b>Mg</b> Magnesium 12

SEMI-CONDUCTOR

<b>B</b> Boron 5
<b>P</b> Phosphorous 15

WIRING

<b>Cu</b> Copper 29
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- QUESTION 1:** Dmitri Mendeleev, 1869  
**QUESTION 2:** Western Copper and Gold  
**QUESTION 3:** D  
**QUESTION 4:** A  
**QUESTION 5:** Sample Answer: Solvest Inc. (Answers may vary)  
**QUESTION 6:** C

## ACTIVITY 7: MINING MAKES IT POSSIBLE

SUBMISSIONS WILL VARY

## ACTIVITY 8: PERIODIC TABLE SPELLING BEE

SUBMISSIONS WILL VARY



## ACTIVITY 9: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING

### BONUS: GRAND PRIZE DRAW ENTRY

COMMUNITY NAME

YVMW CODE WORD

PERIODIC SYMBOLS

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## VIDEO SECTION

### VISIT: CARMACKS

- Q1. Casino Mining Corporation or Casino
- Q2. PPE – Personal Protective Equipment
- Q3. Kate Carmack. She discovered gold in Yukon (Answers may vary)

## ACTIVITY 9: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING

### **DISCOVERY SECTION**

- Q1. A company whose shares are traded freely on a stock exchange
- Q2. Toronto Stock Exchange (TSX), "TSX Venture Exchange" (TSXV) and the "Canada Securities Exchange" (CSE)
- Q3. It is a company's identifier on an exchange that is between 2-3 letters.  
Such as Alexco Resource Corp: TSX. AXU – the exchange is "TSX", ticker is "AXU"
- Q4. Mining is the temporary use of land during which valuable rock containing metal or minerals, called an OREBODY, is removed responsibly from the Earth. From start to finish a mining company has to think about how its activities will affect the environment and nearby communities.
- Q5. The mining process is complicated and involves looking for minerals, evaluation a mineral discovery, building a mine, mining and processing minerals, closing a mine and reclaiming the land. The mining process can take a very long time and cost millions of dollars.

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### **EXPLORATION SECTION**

#### VISIT: ROCKHAVEN

- Q1. Rockhaven Resources Ltd
- Q2. Carmacks
- Q3. Klaza
- Q4. TSX.V.RK or RK
- Q5. Gold, Silver, Lead and Zinc

#### VISIT: CASINO PROJECT

- Q1. Casino Mining Corporation or Western Copper and Gold Corp
- Q2. Drill Core
- Q3. Varied
- Q4. 22 Years
- Q5. ???

#### VISIT: BANYAN

- Q1. Hyland Gold and Aurex McQuesten
- Q2. Bulldozer
- Q3. Tara Christie
- Q4. Camp, Cuz, Main, Montrose Ridge
- Q5. Gold



## ACTIVITY 10: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING

### BONUS: GRAND PRIZE DRAW ENTRY

COMMUNITY NAME

VYMW CODE WORD

PERIODIC SYMBOLS

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### VIDEO SECTION

#### VISIT: DAWSON CITY

- Q1. Placer Mining
- Q2. Dredge No. 4
- Q3. A) Ice-Age Bones / Mammoth Bones (*Answers may vary*)    B) Paleontology
- Q4. S.S. Klondike
- Q5. Gold
- Q6. Over a century/ 100+ years
- Q7. i) Entrepreneurs ii) Families iii) Members of our Community  
Placer Miners

FOR  
EDUCATORS

## ACTIVITY 10: EXPLORE FOR KNOWLEDGE: VIRTUAL YUKON MINING

### DISCOVERY SECTION

- Q6. Prospecting, Exploration, Development, Construction, Production, Reclamation & Closure. Many of these steps overlap and can happen simultaneously. For example, reclamation happens throughout all stages and is often referred to as “progressive reclamation”, meaning you care for the land as you explore and develop a mine.
- Q7. Mining produces the raw materials we need to construct roads and hospitals, to build automobiles and houses, to make computer and satellites, to generate electricity and even to make the clothes we wear and provide the food we eat! Mining also supports exciting and reward careers and contributes to our economy and culture.
- Q8. PPE is “Personal Protective Equipment” and it protects workers against health and safety risks on the job. Yukon is a leader in the mining industry and safety is one of the industry’s most important practices.
- Q9. Hardrock/Quartz Mining and Placer Mining
- Q10. “Open Pit Mining” - which is mining from the surface by creating a pit and “Underground Mining” - which is mining using tunnels and shafts to get deep underground.

### EXPLORATION SECTION

#### VISIT: METALLIC MINERALS

- Q1. Keno Hill Silver Project
- Q2. Silvertrail Highway
- Q3. Keno City
- Q4. Bellekeno Mine, Alexco Resource Corp or Victoria Gold Mine (*not in video, but acceptable*).
- Q5. 200 Million ounces

#### VISIT: FIREWEED ZINC

- Q1. MacMillan Pass
- Q2. Tom and Jason
- Q3. Lead and Zinc
- Q4. 2 – Geologist
- Q5. Canol Road

#### VISIT: ATAC RESOURCES

- Q1. Osiris, Orion and Rau
- Q2. Gold, Silver, Tungsten, Zinc, Lead,
- Q3. Maps
- Q4. 185KM
- Q5. Stewart and Rau

# BONUS ACTIVITY!

## GRADES 7-12: ANSWER KEY



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## ACTIVITY 11: YUKON PLACER MINING REGULATIONS & RECLAMATION

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### YUKON PLACER QUESTIONS

- Q1. More than \$1,600 per ounce USD (as of April 9, 2020)
- Q2. Placer mining is the technique of recovering gold or other heavy metals from gravels; quartz mining recovers gold and other minerals from hard rock.
- Q3. The purpose of this Part is to ensure the development and viability of a sustainable, competitive and healthy placer mining industry that operates in a manner that upholds the essential socio-economic and environmental values of the Yukon and respects the aboriginal and treaty rights referred to in section 35 of the Constitution
- Q4. The Yukon Environmental and Socio-economic Assessment Board's (YESAB). An assessment process is initiated when an individual or organization submits a project proposal to YESAB. Assessors consider the potential environmental and socio-economic effects of proposed activities by gathering and analyzing relevant information from various sources (federal, territorial and First Nation governments, experts in the field, and the public) and by conducting research to allow for a complete and thorough assessment.
- Q5. 200
- Q6. Four (Classes 1 through 4)
- Q7. Class 4 - all Placer Mining Land Use applications for Class 4 activities are processed by the Water Board. A water license is not required for a placer mining project if the water withdrawal rate from a body of water is below the thresholds in the Waters Regulation, which applies to Classes 1, 2 and 3 and is 300 m<sup>3</sup>/day or less.
- Q8. Annually
- Q9. The Robert E. Leckie Awards for Excellence in Environmental Stewardship. The 2019 placer winners were John Alton and Moonlight Mining for their dedication to sustainable practices and their demonstration of the balance that can be achieved between resource development and stewardship of all Yukon lands.
- Q10. <http://www.emr.gov.yk.ca/mining/leckie.html> All recipients posted 1999-2018.  
Also acceptable 2019: Kyle Bruce (Moonlight Mining) and John Alton (Henry Gulch Mining)

# **BONUS ACTIVITY!**

## **GRADES 7-12: ANSWER KEY**

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### **ACTIVITY 11: YUKON PLACER MINING REGULATIONS & RECLAMATION**

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#### **YUKON PLACER RECLAMATION – TRUE OR FALSE QUESTIONS**

- Q1. FALSE, placer gold can also be found in Bench deposits, which are found in old riverbeds which can be high in the hills above current riverbeds.
- Q2. TRUE
- Q3. FALSE, it is required under the Placer Mining Act.
- Q4. FALSE, there are only 4.
- Q5. FALSE, it became law in 2003.
- Q6. TRUE
- Q7. FALSE, there are about 200.
- Q8. FALSE, Class 4 placer mines need water licenses.
- Q9. TRUE. YESAB can recommend additional reclamation requirements beyond what is in the Placer Mining Land Use Regulation.
- Q10. FALSE. YESAB gathers and analyzes information from various sources, including the public.
- Q11. TRUE, the awards are named after Robert E. Leckie, a mining inspector from Mayo who passed away November 1999. Leckie was an innovator who promoted planned reclamation, research and cooperation that benefited both government and industry.