



# ARSENIC, CADMIUM, AND LEAD

## WORKSHOP FOR GRADES 6 TO 9

### about

The Health Effects Monitoring Program (YKHEMP) is a study led by the University of Ottawa to see whether residents of Yellowknife, Ndilo, and Dettah are exposed to higher levels of arsenic compared to other Canadians. Over 2,000 people, aged 3-79, participated in the 2017-2018 baseline sample collection. The monitoring is repeated every 5 years to ensure the remediation activities at Giant Mine are not negatively impacting the local environment and people. This monitoring will continue until 2038!

These resources were created to build knowledge and awareness among local youth around topics relating to the ongoing YKHEMP, the legacy of Giant Mine, and some common metals of concern. These games can easily be integrated into your lesson plan, used as a fun break, or be provided as a resource for substitute teachers.

### curriculum links

*Trivia games can be played with **all ages**, but will tie-in best with the following units of the Alberta curriculum:*

#### Science 7

- Interactions and Ecosystems
- Planet Earth

#### Science 8

- Mix and Flow of Matter
- Freshwater and Saltwater Systems

#### Science 9

- Matter and Chemical Change
- Environmental Chemistry

### what you'll need

- Electronic devices for students
- Wifi access
- Display or projector

*Trivia games are on Kahoot! and are also available on Google Slides, which, after downloading, can be played without access to wifi or electronic devices.*



**HEALTH EFFECTS**  
MONITORING PROGRAM

## trivia - 10min/game

Games focus on characteristics and human health impacts of three contaminants of concern associated with Giant Mine: arsenic, cadmium, and lead.



[Trivia Games and Resources](#)

## class discussion - 20 min

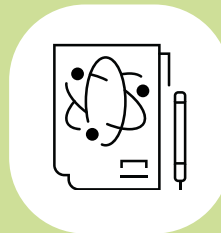
Use our question prompts or create your own to fit your classroom.



[Question Prompts](#)

## projects - 30 min

An opportunity for students to do a deeper dive on a specific contaminant through independent research or a creative writing project.



[Projects](#)

## additional resources

[Giant Mine Oversight Board](#)

Independent oversight board with many visual resources, including drone footage of the mine site

[Giant Mine Remediation Project](#)

Official government website for the remediation project

[ATSDR](#)

Up-to-date information on toxic substances and disease impacts

## field trips

Visit staff working on the [Giant Mine Remediation Project](#)

Learn about environmental sampling at [Taiga Environmental Laboratory](#)

## contact us

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