

Lesson Overview

Grade Level(s)	11th–12th grade (IB French B – Year 1 or Year 2)
Subject(s)	French B (Language B), Global Issues / Environmental Studies (through French) Baccalaureat International: • Thème: Partage de la planète / Expérience / Organisation sociale • Sous-thème: Environmental ○ pollution de l’air, exploitation des ressources naturelles, dangers environnementaux, justice environnementale, Santé. • Questions mondiales: ○ Lien entre l’environnement et la santé ○ Exploitation des communautés vulnérables ○ Inégalités environnementales (Quartiers de Chicago - mines en Ouganda et au Burundi)
Lesson Summary	Students analyze a French news article on artisanal gold mining in Uganda and Burundi to explore the environmental and health impacts of gold mining and consider possible solutions.
Standards	• International Baccalaureate Diploma program French B – Reading comprehension, written and oral expression, intercultural understanding • Sharing the Planet: Explore global challenges and responsibilities, including climate change, migration, access to resources, and social inequality • Experience: Explore personal experiences and the ways in which individuals and communities respond to life events such as health crises and natural disasters
Focus Pulitzer Center news story/stories	“ Uganda-Burundi: Artisanal Gold Mining, a Health and Environment Threat (Ouganda-Burundi : Exploitation artisanale de l’or, une menace sanitaire et environnementale)” by Richard Drasimaku and Rénovat Ndabashinze
Content Advisory	This lesson includes references to pollution, mercury exposure, child labor, and environmental degradation.
Notes on Context	This lesson is designed for intermediate to advanced IB French B learners. Students have prior experience reading authentic French news articles. Many are English learners, so scaffolding (vocabulary lists, sentence starters, visuals) is included. The lesson aims to connect language learning with global health and environmental justice.

Lesson Plan

Lesson Objective(s) or Essential Question(s)
Objectives - Students will analyze French journalistic reporting on artisanal gold mining and its health impacts. - Students will describe in French how the use of chemicals in the rivers affects urban residents' well-being. - Students will consider practical solutions for healthier cities in impacted communities. Essential Questions - How does artisanal gold mining affect health and quality of life? - How can citizens and local governments act to protect community health? - How are human experiences shaped by environmental change in communities?
Focus Pulitzer Center News Story/Stories
Main Story “Uganda-Burundi: Artisanal Gold Mining, a Health and Environment Threat (Ouganda-Burundi : Exploitation artisanale de l’or, une menace sanitaire et environnementale)” by Richard Drasimaku and Rénovat Ndabashinze Additional Resources - Map of Ouganda–Burundi and the Great Lake region in Africa - WHO infographic on mercury exposure - Short video clip on artisanal gold mining
Lesson Outline
Session 1 (Geographic Context & Introduction to the Article) - The lesson began with a classroom discussion on the following question: <i>What makes a city healthy?</i> Students brainstormed various factors (trees, air quality, services). - We transitioned into a geography-focused lesson to establish essential background knowledge before reading the article. - Students were shown a map of Côte d’Ivoire. - We discussed urbanization and population growth and introduced vocabulary (<i>canicule, déforestation urbaine, poumons verts</i>).

- Students annotated maps and filled out a diagram to illustrate the relationship between natural resources, mining zones, and human activity, providing a spatial framework for understanding the article. They completed map activities to locate Uganda, Burundi, The African Great Lakes region, neighboring countries and major lakes.

Session 2 (Initial Reading & Collaborative Vocabulary Discovery)

- Students worked in small groups to read different sections of the article on artisanal gold mining in Uganda and Burundi.
 - During the reading, each group identified unfamiliar French words, expressions, or technical terms related to mining, health, and the environment.
 - These were recorded on sticky notes.
 - The teacher collected the vocabulary and created a student-generated lexicon to be used as a scaffold in the following lesson.

Sessions 3 and 4 (Guided Whole-Class Reading & Lexicon Integration)

- Using the class-created lexicon, students engaged in a second, guided reading of the article. The teacher modeled reading strategies, clarified complex structures, and supported comprehension while students actively applied new vocabulary to interpret key ideas.

Session 5 (Reading Comprehension & Written Synthesis)

- Students reread the article independently in pairs and responded to the following comprehension questions focused on the causes of artisanal gold mining, the environmental and health impacts and the effects on local communities:
 - Quels sont les dangers sanitaires liés à l'exploitation de l'or? (What are the health risks linked with artisanal mining?)
 - Quelles sont les populations les plus touchées et pourquoi? (What populations are the most affected and why?)
 - Quels liens peut-on établir entre pauvreté, santé et environnement? (What links can be established between poverty, health and environment?)
- Students reflected on health issues impacting their own community and wrote a short analytical paragraph in French, synthesizing information from the article and using unit vocabulary accurately. This work was completed as homework.

Session 6 (Summative Project Work)

- In groups, students worked on a summative project culminating in an oral report (in French) titled « *La santé de la planète et la santé des hommes : un équilibre fragile* ».
- The report included a power point presentation with written support and was required to have:
- At least one quote from the article
 - At least one visual element (photo, graph, or map)
 - A personal reflection connecting the issue to global or local health

The project required students to explain the issue, analyze its impacts, and explore realistic solutions.

1. **Health and Environmental Impact** What are the health and environmental consequences of artisanal gold mining in the African Great Lakes region (Uganda, Burundi, DRC), and what solutions are proposed by NGOs, local governments, or international organizations?
 - a. Quelles sont les conséquences sanitaires et environnementales de l'exploitation artisanale de l'or dans la région des Grands Lacs africains (Ouganda, Burundi, RDC), et quelles solutions sont proposées par les ONG, les gouvernements locaux ou les organisations internationales ?
2. **Safety and Protection Measures** What safety or environmental protection measures are recommended by community members and organizations (e.g., Human Rights Watch, the UN, local NGOs) to limit hazards in artisanal mines in East Africa?
 - a. Quelles mesures de sécurité ou de protection de l'environnement sont recommandées par les membres de la communauté et les organisations internationales (ex. Human Rights Watch, ONU, ONG locales) pour limiter les dangers dans les mines artisanales en Afrique de l'Est ?
3. **Comparative Analysis** Compare the situation described in northwestern Uganda and Burundi with another country where artisanal mining causes political or social tensions (e.g., DRC, Burkina Faso).
 - a. Comparez la situation décrite dans le nord-ouest de l'Ouganda et du Burundi avec un autre pays où l'exploitation minière artisanale provoque des tensions politiques ou sociales (ex. RDC, Burkina Faso,).
4. **Cross-Border Trade** Identify another African country where cross-border trade in minerals (gold, coltan, diamonds, etc.) significantly influences official exports (e.g., DRC, Sudan, CAR/Central African Republic).
 - a. Identifiez un autre pays africain où le commerce transfrontalier de minerais (or, coltan, diamants...) influence fortement les exportations officielles (ex. RDC, Soudan, RCA, République Centrafricaine).
5. **Scientific Research Task** Conduct research on the environmental and health effects of heavy metals used in artisanal mining (mercury, cyanide, nitric acid, lead).
 - a. Menez une recherche sur les effets environnementaux et sanitaires des métaux lourds utilisés dans l'exploitation minière artisanale (mercure, cyanure, acide nitrique, plomb).

Assessment

Formative

- Vocabulary quiz on environmental and health terms
- Comprehension questions (in-class discussion and exit ticket)

Summative: Oral Presentation

Students conducted a deep-dive investigation into one of the most complex issues in East Africa: **Artisanal Gold Mining**. While gold is a source of wealth for communities, its extraction comes at a high environmental and public health costs. For this project, students engaged as members of an **International Committee** supporting a regional investigation into how mining in the Great Lakes region, specifically Uganda, Burundi, and the DRC, is affecting the health of the people and the safety of the planet. Students considered the problems and potential **solutions** from the perspective of different communities. They analyzed how minerals move across borders, compared health impacts in different countries, and explained the science behind the chemicals used in the process. Their final findings were presented in a professional committee-style presentation.

- **Groups:** 5–6 students.
- **Format:** PowerPoint / Google Slides.
- **Evidence:** Use maps, data, and reports from organizations like Human Rights Watch or the UN.
- **The Objective:** Research and present the Human and Environmental Cost of Gold and its impact on health in the African Great Lakes Region.
- **Presentations were scored based on how well they covered:**
 - **The Impact:** What are the specific health and nature-related consequences in Uganda, Burundi, and the DRC?
 - **The Solutions:** What are community members, NGOs, and/or the UN doing to fix it? What are the "Safety Rules" for mines?
 - **The Comparison:** Compare the situation in Uganda/Burundi to other countries in the region (Burkina Faso or the DRC).
 - **The Hidden Trade:** How does smuggling (cross-border trade) affect the official economy of these nations?
 - **The Science:** A dedicated section on the effects of **Mercury, Cyanide, and/or Lead** on the human body and the water supply.