



# Geoscape Ottawa-Gatineau

Grade 9 - 11 Lesson Plans to accompany the Geoscape Ottawa-Gatineau poster and website  
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## Theme 5 : WEALTH FROM THE LAND

### OVERVIEW

- Students identify and locate the major rocks and mineral mined in the Ottawa-Gatineau region and relate them to the bedrock and surficial geology of the area
- Students specify the uses for particular rocks and minerals both in the past and present
- Students determine the relative importance of certain rocks and mineral to the economic development of the area.
- Students investigate and appreciate the environmental concerns associated with rock and mineral resource removal.

**DURATION** 85 minutes (1 period)

### ACTIVITY

1. Students identify the rocks, minerals and organic material that could be mined, quarried, or excavated from the various bedrock and surficial materials. A spreadsheet is completed to summarize the information.  
e.g.

| Material                 | Rock/Mineral | Use                     | Active Today |
|--------------------------|--------------|-------------------------|--------------|
| Igneous/metamorphic rock | mica         | industrial oven windows | no           |
| Sedimentary rock         | limestone    | cement                  | yes          |
| Organic deposits         | peat         | horticultural peat moss | yes          |

2. Students use the Geological Survey of Canada (GSC)'s Surficial Geology maps 1506A and 1425A , which show the location of pits and quarries, for research and locate on their hand-drawn map (Lesson 2, 3 or 4) where specific economically viable rock and mineral deposits are or were found. Use a coloured coded legend to identify the locations. Note the distinction between a pit and quarry.

Note : **Rocks and minerals for the collector**, GSC Miscellaneous Report 33 (Buckingham - Mont-Laurier - Grenville, Quebec; Hawkesbury - Ottawa, Ontario) and Miscellaneous Report 41 (Hull - Maniwaki, Quebec; Ottawa - Peterborough, Ontario) by Ann Sabina. These field guidebooks contain brief descriptions of many of the old mines and some of the old quarries in the Ottawa area.

3. Students summarize the relative number of mines and quarries of specific rocks and minerals and summarize with a concluding statement.
4. Students research via the Internet the environmental concerns in the Ottawa-Gatineau area that might be associated with the removal of one such resource (i.e. peat, sand, limestone etc.). A 1-page report is written that identifies the cause, effects and solutions of the concern.