

Plan: How can I help prepare students and myself for a great day of learning?

The **Rocks and Minerals** program is designed to enrich and expand the Grade 4 classroom STEM* program by bringing the Ontario Science, Technology and Math curriculum to life through a hands-on, learning experience at Forest Valley Outdoor Education Centre.

*An integrated application of Science, Technology, Engineering and Mathematics

Curriculum Connections:

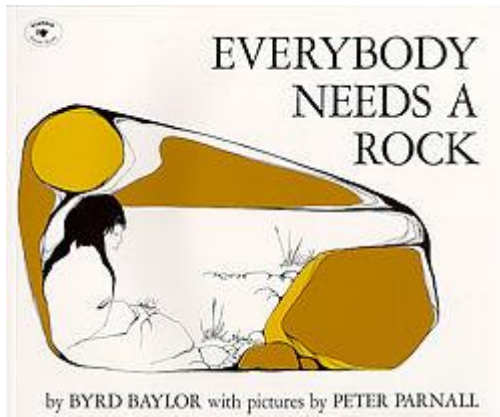
- [Science and Technology 1-8 Understanding Earth and Space Systems, Rocks and Minerals \(pp.93-95\)](#)
- [Mathematics, Measurement, Data Management and Probability \(pp. 69-70,74\)](#)

Some guiding questions to support effective field trip planning:

- Why did you choose **Rocks and Minerals**?
- How does it integrate into your classroom program?
 - Is the field trip going to act as a “minds on” engagement where students formulate questions for inquiry?
 - Is the field trip an opportunity for students to gather evidence for an inquiry already in progress?
 - Is the field trip a culminating experience for students to apply their learning?

Possible Pre-Trip Experiences:

- document (sketching, photos) a community/playground walk looking for natural and human uses of rocks and minerals
- begin researching how things are made and make a tally of the primary natural resource that is used
- Search Google images for maps and photos of [Ontario Mining](#)
- begin a Know, Wonder, Learn (KWL) chart based on the Framing Question (**How does our use of rocks and minerals impact the environment?**) to bring with you to Forest Valley
- explore various maps of Ontario that show the relationship between population and rock/mineral use (e.g. <http://www.ontario.ca/rural-and-north/aggregate-resources>)
- explore perimeter and area in a real world context (e.g. How much terrazzo is needed for your hallway? How many tiles are needed for your classroom? How much concrete for your front walk? How much asphalt for your playground?)
- investigate the properties of different rocks (sedimentary, metamorphic, igneous) and how they are formed
- to borrow books which help support your program (including the one pictured below) please contact Forest Valley OEC (ForestValleyOutdoorEdCentre@tdsb.on.ca or 416-395-5110)



TDSB Web Resources (note, these may only be accessible through a TDSB computer):

- [MediaNet](#) (Library & Learning Resources: Grade 4 Earth and Space)
- [TDSB's Virtual Library](#).