

## Using local materials and simple ideas to explain geoscience

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Local buildings, walls, streets, rip rap, and building stones provide a wealth of information for teachers and geoscientists to discuss geological materials and geological processes. Geoscientists have an important role in helping teachers and students [and the general public] to appreciate common geological materials and processes. Common places for these materials are to be found in school buildings and grounds, city and town streetscapes, and coastal areas. Teachers and geoscientists who are working with topics in geoscience can use local materials and simple ideas to illustrate more complicated and larger scale geological thoughts. An example of a simple idea is hardness testing of minerals. Some minerals are harder than others. Using an easy to understand demonstration, teachers invite students to scratch a sandstone from northern Nova Scotia and a granite from southern Nova Scotia. The discussion following this may lead to an understanding that some rocks are hard and some are soft. Hardness can then be moved to discuss why some land is higher in elevation than other areas. The questions about "why mountains" can be explored. Adding limestone and the acid test [with supervision] allows students and the public to comprehend the effect of chemical reactions on earth materials. Using common examples from streetscapes and along the coast, geoscientists are able to help students, teachers and the public appreciate the rate of change from either natural and/or human-induced processes. As teachers and geoscientists use methods of inquiry that rely on observation, non-difficult conclusions, and transfer of knowledge, they encourage students and the public to see the earth around them, notice the effects of geological processes and build their own knowledge through active, experiential learning.