

ES089 Rock EXERCISES

Name _____

Student # _____

Part I: Several buildings on campus are faced with natural stone. Most of this rock was quarried in Canada.

1) The windowsills of Biological and Geological Sciences are made of a rock from a quarry in the Niagara Escarpment.

It is sedimentary igneous metamorphic (circle the correct class of rock). (1)

2) What evidence found in the rock supports this classification? (Go look at a windowsill for the evidence!)

_____ (2)

3) Given that this rock is made of calcite, what rock name is appropriate? (I.e. rock name, not class.)

_____ (2)

4) The facing stone of several buildings including: University College, Middlesex College, Sommerville House, Physics and Astronomy, the older part of Natural Sciences, Stevenson-Lawson, Kresge, Medical Sciences, Biological and Geological Sciences is of slightly greater age than the window sill material. It is sedimentary, exhibits cross bedding, is composed of ground-up quartz grains and has a gritty feel. What is the proper name for this rock?

_____ (2)

5) The exterior rock of the entrances and window casements in many of these buildings was quarried in Indiana. The rock is full of fossils and reacts with acid. What is the proper name for this rock?

_____ (2)

6) The exterior stone for the Labatt's Visual Arts Centre was quarried in southern Manitoba. It reacts with acid. What is the proper name for this rock?

_____ (2)

7) What evidence supports the name? (Hint: look at the west wall of the building near the south end. Just above and to the right of the fire hydrants mounted in the wall, you'll find evidence as to its rock class).

_____ (2)

8) The main entrance and stairwell of University College is lined with a polished rock that reacts with acid and has undergone metamorphism. What is the proper name for this rock?

_____ (2)

9) Circle the name of one other building on campus that has rocks similar to the one in question #8. Note that there is colour variation in this rock type – including brown, green pink-beige as well as black.

Natural Sciences Middlesex College Western Science Center Sommerville House
(2)

10) The floors of many campus buildings are made of “terrazzo” that is chips of rock bound by a cementing agent, all of which is ground, buffed and sealed. Fossils would have been destroyed in the process by which the rock, from which the chips come, was formed.

This rock belongs to what class? _____ (2)

Part II: Rocks have been sculpted for as long as people have been able to shape them. Some are more durable than others.

11) The term “alabaster” applies to a rock composed of a mineral with a hardness of 2 on Mohs’ hardness scale. What is the proper geological name of that rock?

_____ (2)

12) The people of eastern Asia carved rocks composed of amphibole (nephrite) or pyroxene (jadeite).

These rocks are grouped together under what general term? _____ (2)

13) Much of the sculpting done by Michelangelo and Leonardo DaVinci was done in a white metamorphic rock composed of calcite.

What is the geological name of that rock? _____ (2)

14) Igneous rocks have also been used as media for sculptures. Name two igneous rocks that have been used for this purpose.

_____ (4)