Geology 12 – W&E Name: \_\_\_\_\_\_\_\_\_\_\_\_\_

**Weathering and Erosion Questions**

Please answer the following on a separate sheet of paper. Use your notes to answer these.

1. a) What is believed to be the cause of spheroidal weathering and exfoliation?

b) What type of weathering (physical or chemical)?

1. What type of conditions result in the most weathering? Why?
2. A rock that is stained with a reddish colour probably results from what type of weathering? What is the reaction involved?
3. a) Carbonic acid that falls on a large slab of granitic rock containing feldspar will result in which type of weathering?

b) Where does the carbonic acid in rainwater come from?

1. Which of the following rocks would dissolve the fastest if carbonic acid were to fall on them: Granite, Limestone, Schist, Basalt, Gabbro? Explain.
2. a) Explain how plants and animals can cause physical weathering.

b) Explain how plants and bacteria can cause chemical weathering.

1. Explain the likely causes of the gradual weathering of the Stanley Park sea wall.

**WEATHERING and CHEMICAL STABILITY**

1. Describe what makes a rock “chemically stable.”
2. Explain in your own words how the Bowen’s Reaction Series (from Unit 1) relates to the rate of weathering and chemical stability.
3. If the following rock outcrop is exposed to wind and rain, would they all dissolve at the same rate? Which will dissolve first?