

Group Project 1: Geologic illustrations

Purpose: The geology program at NSCC has inherited many packets of black-and-white illustrations from previous geology instructors. Since there is no formal text for this class, you will get each of these four packets so that we have a set of common illustrations that we can discuss in class. Unfortunately, some of them are badly reproduced or are simply unclear. In this project, you will choose an illustration with some portion unclear and clarify it in a **three-minute oral presentation** with at least **one visual element** (not the illustration itself) and **writing a summary** of the same.

Timeline for the project:

Day 1 (Wednesday): Form groups of four. Assign a role to each of the members; such as an **organizer/facilitator**, a **researcher**, a **writer/recorder**, and a **presenter**. Alternatively, each member can perform all of the tasks above and the individual results can be pooled and edited.

Choose one of the eight badly-reproduced illustrations below:

1. Sheet 6
 - “Dike” is apparently not pointing at any feature; what feature on the diagram should it point to?
 - What is a dike, and how does it form?
2. Sheet 8
 - What is an “unconformity”?
 - On the sheet, where is the “parallel unconformity” in the top drawing; where is the “angular unconformity” in the bottom drawing?
3. Sheet 11
 - The “normal fault” and the “overthrust fault” look quite similar; what is the difference between the two?
 - There should be a line on each diagram that represents each type of fault; show where the fault should be on each diagram.
4. Sheet 16
 - What is the arrow from “foreset beds” actually pointing at?
 - What are foreset beds, and what sort of event do they represent?
5. Sheet 21
 - Is “shale” the same thing as “aquiclude”? Is “sandstone” the same thing as “aquifer”? Explain the differences, especially if one of each pair is a more generic term.
6. Sheet 25
 - IB, according to the legend, stands for “ice blocks”. Where are they on the diagram?
 - How do they form? What feature do they eventually become?
7. Sheet 31
 - In the lower drawing, I believe the phrase towards the bottom of the drawing is “abrasive platform”; what is an abrasive platform, and where is that phrase pointing to on the drawing?
 - How does such a platform form?
8. Sheets 39–41
 - What event or process starts the “cycle of denudation”? How long does the cycle take?
 - What is the significance of the playa?

Choose **three** of the illustrations you find interesting enough to pursue (you will only present one of them). To assure that your group gets one of the chosen illustrations, give me a **list of the group members and the number of three selections**. I do not want repeated presentations, so each group will cover a different selection, and you will know which one by the end of the period.

After class, either as a group or individually, begin determining the answers to the posed questions about your illustration. Note that your group must have at least one citation in the bibliography of the written part of this assignment. You may not use Wikipedia, but you may use on-line sources whose site name ends with a “.edu”.

Day 2 (Friday): You will have some time to discuss progress within the group. By the end of this period, your group should have answers to the posed questions about your illustration that will make a good three-minute oral presentation. At this point, assign someone to coordinate the presentation and someone else to write up the answers on paper to turn in to me. You should also determine what **visual elements** you will use: it could be an overhead transparency, a website, a Powerpoint slide or even a poster. Some of the illustrations will require that you modify the original drawing; I will have overhead transparencies for you to use for this purpose.

Day 3 (Monday): Each group will present their oral presentation, first **summarizing** the information they found out about their illustration (at least the answers to the bullet-pointed questions), then stating **how** they would **clarify** the original illustration. A *short* question-and-answer period will ensue. You will have access to a slide projector, an overhead projector and a computer projector to illustrate your talk.

- Turn in the **written summary**, along with a **bibliography**. Make sure the names of all group members *who contributed to the presentation* are on the summary. The bibliography should contain the author, title, publisher and publication date of the textbook(s) you used and/or the author or sponsoring organization, the URL (i.e., <http://...>) and the last update date of the website(s) you used.