

LESSON B (GROUPS B1 – B7)

Rule 1: You must adapt a NCTM Illuminations MEASUREMENT lesson for Lesson B.

Rule 2: You may use homework activities directly available to the elementary and middle school mathematics teacher community OR you may modify resource ideas into a homework assignment.

I. (Group work) Resource Research and Approval

- i) **Start and maintain throughout Lesson B—Your Personal Activity Log**
Include all time spent, class, individual & group meetings. Download the auto-add activity log spreadsheet from the Lesson page. Use the Lesson B tab.
- ii) **Find and submit NCTM Illuminations Lesson Options**
As a group, look over the NCTM Illuminations lesson options. Pick lessons that have to do with some sort of Measurement Topic. Avoid lessons that duplicate work done in Math 211, 212 or 213.

Choose your top FIVE lesson choices and email a ranked list of Illuminations lesson titles and URLs to Laurie by the topic submission deadline listed on your course web page.

II. (Group work) Preparing Lesson Plan B and the Lesson B Presentation

To prepare for this lesson, your group must meet (one day in a class meeting at the library, week 4, and outside of class) and do at least the following:

- iii) **Obtain your approved Illuminations lesson assignment**
The approved lesson list will be posted prior to the library work day.
- iv) **Determine Appropriate Standards**
Review the NCTM Standards and/or Curriculum Focal Points listed in your lesson.
- v) **Pick Components of Lesson**
Determine which components of your approved Illuminations lesson your group wishes to use. In general, each Illuminations lesson plan is a set of ideas which contains too much material for a single class period. For Lesson B, you **may not** write new lesson materials.
- vi) **Set Group Duties and Roles**
Determine how the members of your group will share the preparation and class presentation (as evenly as possible) of your lesson ideas.
- vii) **Design Lesson**
As a group; design an overall lesson plan to teach to the class. Carefully prepare any needed materials.
- viii) **Review Class Assessment Rubric**
Review the Math 395 Presentation Rubric and double check your group has addressed each component of an effective lesson and lesson presentation.

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ix) **Create “Assign Groups” Plan**

Determine what technique you will use to split the class up for your lesson. The class should ideally work in six groups of three students each, but these groups may *not* be the assigned lesson plan groups. Your group must have some quick technique prepared to divide the class up. “Choose your own group” is not an option. If six groups of three students each does not work for your lesson, you may choose different size groups.

x) **Write Outline Summary**

Type (1 inch margins, Arial font 12, double spaced please) an outline summary of your lesson plan. Include notes on the standards/focal points addressed, the assigned roles for each group member and your plan for splitting up the class into groups.

xi) **Practice Presentation**

It is important that your group spends time practicing your lesson presentation. Practice and coordinate group presentation roles.

xii) **Gather and List Materials**

Determine what materials your group will need for your class presentation (manipulatives, copies, etc.) and fill out the presentation material items on a Math 395 Materials & Copy Request Form.

III. (Group work) Prepare Homework B

To prepare for this homework assignment; your group must do at least the following.

xiii) **Create Homework Assignment**

You may use prepared NCTM materials associated with your Illuminations materials or you may write your own homework set. Avoid skill and drill.

xiv) **Assign Points**

Each homework assignment for Lesson B must be worth exactly 15 points (no extra credit options are allowed).

xv) **Label Homework Sheet**

In the top left corner; mark the title of the homework (Homework B#, where # is your group number) and the due date (see the course schedule).

xvi) **Write Homework Key**

As a group, write a homework key, including the points per question, for your Lesson B Homework.

xvii) **List HW Materials**

Fill out the homework item(s) on your group’s Math 395 Materials & Copy Request Form.

IV. (Group work) Turn In Materials

At least one day prior to your presentation (see course schedule), turn the following items in to Laurie:

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- xviii) **Completed Materials & Copy Request with attached materials**
Your completed Math 395 Materials & Copy Request Form with all associated materials needed for copying.

Please submit ELECTRONICALLY (.doc, .docx or .pdf) if possible

A .doc version of the copy request form is linked to the Lesson Groups page.
BE SURE (in the email) to Cc: the other two members of your group.

For materials submitted as a hard copy, please DO NOT STAPLE

- xix) **Outline Summary**
The typed Outline Summary of your lesson plan (item x).
Hard copy or electronically is OK.
- xx) **Completed HW Key**
Your completed HW Key (item xvi).
Hard copy or electronically is OK.

V. (Group work) Pick Up Materials: Presentation Day (9 a.m. office hours)

- xxi) **Pick up Materials**
At least one group member should drop by Laurie's office to pick up your group's presentation materials and copies.

VI. (Group work) Give your Class Presentation (40 – 45 minutes total)

- xxii) **Turn In Master Copy**
At the start of class, turn in one master copy of any lesson presentation materials that differ from the materials *copied* for the class that have already been submitted. These may include group notes, items to show at the document camera, etc. Laurie will need an exact copy of everything that you use during your presentation.
- xxiii) **Give Lesson Presentation**
Your group should organize the class in small working groups as described in your *Outline Summary*.

Your group will present your lesson. You are completely in charge and part of your assessment will include your preparation and effective use of time. By the 40 minute mark, your lesson presentation must end.
- xxiv) **Assign Homework**
At the end of your presentation, your group should pass out your homework assignment and give any needed remarks about the homework or required materials for the homework.

VII. Lesson Assessment (10 minutes)

After the lesson, the class (in small groups) will use the ***Math 395 Presentation Rubric*** and assess your group's lesson and presentation.

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VIII. (Group work) Collect and Grade Homework

xxv) **Collect Homework**

One class days after your lesson presentation, your group will collect your assigned homework. You may divide the grading work as your group decides, but it is imperative that your group grades the homework uniformly. Note; part of your overall assessment will include your ability to grade fairly and reasonably.

xxvi) **Grade Homework & Record Scores**

Grade (outside of class) your group's homework. Record the homework scores on the provided class list. The members of your group do not do this homework assignment. For group members, record a score of **G** (for group). For students that do not turn in the homework, record a score of 0.

xxvii) **Return Homework & Scores**

One class day after collecting your group's homework assignment, before the beginning of class, return the graded homework and the score sheet to Laurie.

IX. (Group work) Write Final Lesson Report

xxviii) **Lesson Report**

After your lesson presentation, meet as a group and type (1 inch margins, Arial font 12, single spaced please) a one – two page final report discussing your lesson. Include comments on, at least:

- The effectiveness of your preparation;
- The effectiveness of your presentation;
- Your ability to run the class;
- Student engagement;
- Student learning (refer to homework success / issues);
- Notes for changes and improvements you would make for a repeat lesson.

At the end of your report, include

1) A Group Score Breakdown. Possibilities include:

- Equal shares
- 50%-25%-25%
- Another distribution your group feels is fair

If your score breakdown is not equal shares, provide a justification.

2) Each group member must sign the end of the report

3) Attach individual activity logs for each student in your group to your report.