

### Microteaching Assignment

**Assignment:** Working in pairs, prepare two lesson plans – one for an inductive-format lesson and a second for a teacher-directed lesson. You will “micro-teach” a 35- to 40-minute inductive lesson. Microteaching will take place during the class sessions on September 25 and September 30. There will be some brief discussion following each lesson presentation.

**Details:** Work in pairs (your preference). Both members of each team will receive the same grade on the assignment – on a separate sheet of paper, please itemize the tasks for which each member of the team was individually responsible, and those that were undertaken together.

Prepare two lesson plans. Use the inductive format (*Launch, Explore, Share, Summarize*) for the inductive lesson and the Brahier format for the more traditional lesson.

Since the first lesson is inductive, you should devise an activity or pose a problem (either hands-on or conceptual) that will get the class working to think about the concept that is at the heart of the lesson. Through “inquiry,” students will build their own learning for this part of the lesson, then they will be encouraged to share or present solutions. The end of the lesson should be a teacher-led wrap up where the important mathematical concepts are brought forward, clarified and tied together.

The second lesson will be a more traditional, teacher-directed lesson. You should plan to either prepare a traditional lesson for the same topic you used in the inductive lesson, or build this lesson around the anticipated follow-up from the students’ “discoveries” of the inductive lesson. In other words, this will be a more traditionally formatted lesson that would either serve as an alternative to induction, or extend the topic forward from the initial inductive lesson. You will not microteach the second lesson.

You should plan for a 40-45 minute class period, and will have the majority of that time for your presentation. (We’ll not worry about details such as attendance, student arrival, etc.) Other members of the class will be serving as “students” in your math classroom, so we will be doing the work that you have for us. You should thoroughly include the posing of the problem, some amount of exploration, and the teacher wrap-up (at a minimum) in your microteaching episode.

The topic should be an introduction to a new concept (to the students) in *Math B (geometry or advanced algebra/trigonometry)*. If your team has a different topic that really appeals to you, let me know, and it may be acceptable. The lesson should be aimed for a grade 10 or 11 class audience – you will specify the grade level in your plan.

A rubric for the presentation is on the back of this sheet, and rubrics for the other components are on pages that follow. You must turn in the following:

- Copies of both completed lesson plans
- Copies of any class handouts, overheads used, notes, etc.

## Presentation Assessment Rubric

Descriptors – extent to which each of the following is met:	5 pts	Exceptionally well
	4 pts	To a large extent
	3 pts	Satisfactorily
	2 pts	Weakly
	1 pt	Not at all

- \_\_\_\_\_ 1. Presenters speak clearly, make eye contact with the class and use correct English
- \_\_\_\_\_ 2. Written materials (or board notes) are legible, professional looking and well organized
- \_\_\_\_\_ 3. Presenters demonstrate good understanding of the mathematics presented.
- \_\_\_\_\_ 4. The concept (or problem) is introduced in a manner that enhances student motivation and understanding.
- \_\_\_\_\_ 5. The presenters conclude the lesson with a coherent wrap-up that aids student understanding.
- \_\_\_\_\_ 6. Presenters actively engage the students in class throughout the lesson.
- \_\_\_\_\_ 7. Presenters encourage questions and respond appropriately.
- \_\_\_\_\_ 8. Presenters assess student understanding throughout the lesson.
- \_\_\_\_\_ 9. The lesson presented was an inductive one.
- \_\_\_\_\_ 10. Both members of the team appear to play an active role.

\_\_\_\_\_ **Total Points (50)**

Comments:

### MICROTEACHING LESSON PLANS

The inductive lesson plan should include the following components:

- 1) A description of the goals of the lesson. Goals are general outcomes for the lesson.
- 2) A description of the student learning objectives of the lesson. Include specific instructional objectives tied to the New York State Mathematics Learning Standards. Remember that objectives should be measurable, and will ultimately be assessed (see item 8).
- 3) A list of any required materials: equipment, handouts, overheads, etc.
- 4) Describe the *Launch* activity.
- 5) Describe the *Explore* process.
- 6) Describe the *Share* process.
- 7) Describe the *Summarize* process (the teacher wrap-up).
- 8) Describe assessment for the lesson – how will you know whether the student learning objectives have been met?

#### Inductive Lesson Plan – Assessment Rubric

Lesson Plan	Low					High
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Each of the following was clearly and thoroughly presented in the lesson plan:

Goals and Objectives clearly stated <i>(in terms of student behavior, specific and measurable)</i>	1	2	3	4	5	_____ (5)
Materials used	1	2	3	4	5	_____ (5)
<i>Launch</i> activity	1	2	3	4	5	_____ (10)
<i>Explore</i> process <i>(clearly stated and complete; inductive; focus on student understanding)</i>	1	2	3	4	5	_____ (10)
<i>Share</i> process	1	2	3	4	5	_____ (5)
<i>Summarize</i> process	1	2	3	4	5	_____ (10)
Assessment activity <i>(related to objectives, teacher would be able to determine if met)</i>	1	2	3	4	5	_____ (5)

Total Score: \_\_\_\_\_ (50)

**Overall Comments:**

The teacher-directed lesson plan should include the following components:

- 1) A description of the goals of the lesson. Goals are general outcomes for the lesson.
- 2) A description of the student learning objectives of the lesson. Include specific instructional objectives tied to the New York State Mathematics Learning Standards. Remember that objectives should be measurable, and will ultimately be assessed (see item 8).
- 3) A list of any required materials: equipment, handouts, overheads, etc.
- 4) Describe your lesson introduction – how will you motivate student interest in the lesson?
- 5) Describe the details of your (teacher-directed) lesson procedure.
- 6) Describe the lesson closure activity (the teacher wrap-up).
- 7) Describe an extension activity – something additional to do if time permits. *Note: if time does not permit your extension activity to take place, your lesson objectives should still be met.*
- 8) Describe the assessment activity. How will you know whether the student learning objectives have been met?

### Traditional Lesson Plan – Assessment Rubric

Lesson Plan	Low	High
Each of the following was clearly and thoroughly presented in the lesson plan:		
Goals and Objectives clearly stated <i>(in terms of student behavior, specific and measurable)</i>	1	5
Materials used	1	5
Motivation relevant and interesting	1	5
Lesson Procedure <i>(clearly stated and complete; focus on student understanding)</i>	1	5
Closure activity	1	5
Extension activity	1	5
Assessment activity <i>(related to objectives, teacher would be able to determine if met)</i>	1	5
Total Score:		(50)

### Microteaching Grade Summary

Class Presentation – Inductive Lesson	(50)
Inductive Lesson Plan	(50)
Teacher Directed Lesson Plan	(50)
<b>Project Total</b>	<b>(150)</b>