

LESSON PLAN
Number Sense and Operations
Denise LePage
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Introduction

The mathematical topic of this lesson plan is “Prime and Composite Numbers.” Its purpose is to provide pre-service elementary math teachers with a review of the two math concepts while simultaneously reviewing the use of a **Venn diagram**, introducing the **Frayer Model** as a literacy device within the context of a math lesson, and presenting **Factor Game** as a means of assessing elementary students’ ability to apply their knowledge and understanding of prime and composite numbers in the context of factors.

Objectives

1. Given the math term “prime number,” pre-service teachers will complete a **Frayer Model graphic organizer** by documenting Definition, Facts, Examples, and Non-examples of a prime number.

Using a **think-pair-share** approach, the pre-service teachers will discuss prime number Definitions and Facts and justify Examples and Non-examples.

Standards: Number and Operations Content Standard (NCTM, 2000)
Problem Solving Process Standard (NCTM, 2000)
Reasoning and Proof Process Standard (NCTM, 2000)
Communication Process Standard (NCTM, 2000)

Assessment: The instructor will **observe** the completion of the Frayer Model, eavesdrop on the partner discussion, and use **oral questions** during the whole-class discussion to determine the pre-service teachers’ current understanding of a prime number and their ease of use of the Frayer Model.

2. Given the math term “composite number,” pre-service teachers will complete a **Frayer Model graphic organizer** by documenting Definition, Facts, Examples, and Non-examples of a composite number.

Using a **think-pair-share** approach, the pre-service teachers will discuss composite number Definitions and Facts and justify Examples and Non-examples.

Standards: Number and Operations Content Standard (NCTM, 2000)
Problem Solving Process Standard (NCTM, 2000)
Reasoning and Proof Process Standard (NCTM, 2000)
Communication Process Standard (NCTM, 2000)

Assessment: The instructor will **observe** the completion of the Frayer Model, **eavesdrop** on the partner discussion, and use **oral questions** during the whole-class discussion to determine the pre-service teachers’ current