

# Lesson Plan      Understanding Multiplication

Secondary Courseware    Skill Level 3

## Lesson (PLATO):

Curriculum:    Foundational Math

Course:          Understanding Multiplication

Module:         Understanding Multiplication as Repeated Addition

## Objective/Skill Activity (PLATO):

Objective: The learner will apply the mental model of multiplication as repeated addition, using pictures, words, and numbers.

## Content Standard (PLATO/State):

Standard:

Goal:

## Anticipatory Set (Teacher):

Activity: Teacher will utilize the PLATO Tutorial as the introduction to this lesson

Materials: Computer, Projector, PLATO Courseware, Offline Activity, Smart Tools if available (CPS Chalkboard)

## Instructional Strategies (Teacher):

- Go through the tutorial as a whole group introduction to this objective
- Check the students understanding of the lesson by utilizing the PLATO Courseware and at the Practice/Application level as a whole group activity.
- Encourage collaborative explorations and discussions using the Math Tools.
- Project the courseware on a screen for classroom demonstrations and discussions.

## Classroom Activities (setting, schedule, time allotment, student guided, and independent practice):

- Whole group interaction with the students by utilizing the PLATO courseware and the learning tools provided with in the courseware.
- Use the courseware as a vehicle for individual support within a problem-solving classroom.
- Encourage peer-tutoring by assigning pairs of learners to work through a tutorial and practice together.

## Extension Activity (Teacher):

- Offline activity will be provided as a follow-up activity
- Develop Journal prompts that encourage the learner to further extend their mathematical knowledge and make connections
- Assign individual lessons to small groups; have each group teach the lesson content to the whole group

## Closure Activity (Teacher):

Review the materials presented through the PLATO Courseware and check the students understanding of the concepts taught

**Assessment Strategy (PLATO/Teacher):**

- PLATO Mastery test will be completed by each student and passed with a score of 80% or better.
- Use course level assessments as pre-tests to prescribe modules that target skill gaps.
- Use mastery tests as pre-tests to allow learners to “test out” of particular modules.
- Use printed-out journal exercises and offline activities as part of a portfolio-based assessment plan.

**Follow-up/Comments:**

Students not passing the mastery test will be required to repeat the tutorial and supporting materials before taking the test again

**Lesson Plan      Understanding  
Multiplication**

Secondary Courseware    Skill Level 3

**Lesson (PLATO):**

Curriculum:    Foundational Math

Course:          Understanding Multiplication

Module:         Understanding Multiplication as an Array

**Objective/Skill Activity (PLATO):**

Objective: The learner will apply the mental model of multiplication as an array of  $r$  rows and  $c$  columns, using pictures, words and numbers,

**Content Standard (PLATO/State):**

Standard:

Goal:

**Anticipatory Set (Teacher):**

Activity: Teacher will utilize the PLATO Tutorial as the introduction to this lesson

Materials: Computer, Projector, PLATO Courseware, Offline Activity, Smart Tools if available (CPS Chalkboard)

**Instructional Strategies (Teacher):**

- Go through the tutorial as a whole group introduction to this objective
- Check the students understanding of the lesson by utilizing the PLATO Courseware and at the Practice/Application level as a whole group activity.
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**Lesson (PLATO):**

Curriculum:    Foundational Math

Course:            Understanding Multiplication

Module:            using the Identity Property of Multiplication

**Objective/Skill Activity (PLATO):**

Objective: The learner will apply the identity property of multiplication.

**Content Standard (PLATO/State):**

Standard:

Goal:

**Anticipatory Set (Teacher):**

**Activity:** Teacher will utilize the PLATO Tutorial as the introduction to this lesson

**Materials:** Computer, Projector, PLATO Courseware, Offline Activity, Smart Tools if available (CPS Chalkboard)

**Instructional Strategies (Teacher):**

- Go through the tutorial as a whole group introduction to this objective
- Check the students understanding of the lesson by utilizing the PLATO Courseware and at the Practice/Application level as a whole group activity.
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**Closure Activity (Teacher):**

**Review the materials presented through the PLATO Courseware and check the students understanding of the concepts taught**

**Assessment Strategy (PLATO/Teacher):**

- PLATO Mastery test will be completed by each student and passed with a score of 80% or better.
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**Follow-up/Comments:**

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**Lesson (PLATO):**

**Curriculum:** Foundational Math

**Course:** Understanding Multiplication

**Module:** Using the Commutative Property of Multiplication

**Objective/Skill Activity (PLATO):**

**Objective:** The learner will apply the commutative property of multiplication.

**Content Standard (PLATO/State):**

**Standard:**

**Goal:**

**Anticipatory Set (Teacher):**

**Activity:** Teacher will utilize the PLATO Tutorial as the introduction to this lesson

**Materials:** Computer, Projector, PLATO Courseware, Offline Activity, Smart Tools if available (CPS Chalkboard)

**Instructional Strategies (Teacher):**

- Go through the tutorial as a whole group introduction to this objective
- Check the students understanding of the lesson by utilizing the PLATO Courseware and at the Practice/Application level as a whole group activity.
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**Lesson Plan      Understanding  
Multiplication**

Secondary Courseware    Skill Level 3

**Lesson (PLATO):**

Curriculum:    Foundational Math

Course:        Understanding Multiplication

Module:        Using the Associative Property of Multiplication

**Objective/Skill Activity (PLATO):**

Objective:

**Content Standard (PLATO/State):**

Standard:

Goal:

**Anticipatory Set (Teacher):**

Activity: Teacher will utilize the PLATO Tutorial as the introduction to this lesson

Materials: Computer, Projector, PLATO Courseware, Offline Activity, Smart Tools if available (CPS Chalkboard)

**Instructional Strategies (Teacher):**

- Go through the tutorial as a whole group introduction to this objective
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Secondary Courseware    Skill Level 3

**Lesson (PLATO):**

**Curriculum:**    Foundational Math

**Course:**        Understanding Multiplication

**Module:**        The learner will apply the associative property of multiplication.

**Objective/Skill Activity (PLATO):**

**Objective:**

**Content Standard (PLATO/State):**

**Standard:**

**Goal:**

**Anticipatory Set (Teacher):**

**Activity:** Teacher will utilize the PLATO Tutorial as the introduction to this lesson

**Materials:** Computer, Projector, PLATO Courseware, Offline Activity, Smart Tools if available (CPS Chalkboard)

**Instructional Strategies (Teacher):**

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**Extension Activity (Teacher):**

- Offline activity will be provided as a follow-up activity
- Develop Journal prompts that encourage the learner to further extend their mathematical knowledge and make connections
- Assign individual lessons to small groups; have each group teach the lesson content to the whole group

**Closure Activity (Teacher):**

Review the materials presented through the PLATO Courseware and check the students understanding of the concepts taught

**Assessment Strategy (PLATO/Teacher):**

- PLATO Mastery test will be completed by each student and passed with a score of 80% or better.
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**Follow-up/Comments:**

Students not passing the mastery test will be required to repeat the tutorial and supporting materials before taking the test again

**Lesson Plan      Understanding  
Multiplication**

Secondary Courseware    Skill Level 4

**Lesson (PLATO):**

**Curriculum:**      Foundational Math

**Course:**            Understanding Multiplication

**Module:**            Using the Distributive Property of Multiplication over Addition

**Objective/Skill Activity (PLATO):**

**Objective:** The learner will identify number sentences that illustrate the distributive property of multiplication over addition.

**Content Standard (PLATO/State):**

**Standard:**

**Goal:**

**Anticipatory Set (Teacher):**

**Activity:** Teacher will utilize the PLATO Tutorial as the introduction to this lesson

**Materials:** Computer, Projector, PLATO Courseware, Offline Activity, Smart Tools if available (CPS Chalkboard)

**Instructional Strategies (Teacher):**

- Go through the tutorial as a whole group introduction to this objective
- Check the students understanding of the lesson by utilizing the PLATO Courseware and at the Practice/Application level as a whole group activity.
- Encourage collaborative explorations and discussions using the Math Tools.
- Project the courseware on a screen for classroom demonstrations and discussions.

**Classroom Activities (setting, schedule, time allotment, student guided, and independent practice):**

- Whole group interaction with the students by utilizing the PLATO courseware and the learning tools provided with in the courseware.
- Use the courseware as a vehicle for individual support within a problem-solving classroom.
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**Extension Activity (Teacher):**

- Offline activity will be provided as a follow-up activity
- Develop Journal prompts that encourage the learner to further extend their mathematical knowledge and make connections
- Assign individual lessons to small groups; have each group teach the lesson content to the whole group

**Closure Activity (Teacher):**

**Review the materials presented through the PLATO Courseware and check the students understanding of the concepts taught**

**Assessment Strategy (PLATO/Teacher):**

- PLATO Mastery test will be completed by each student and passed with a score of 80% or better.
- Use course level assessments as pre-tests to prescribe modules that target skill gaps.
- Use mastery tests as pre-tests to allow learners to “test out” of particular modules.
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**Follow-up/Comments:**

**Students not passing the mastery test will be required to repeat the tutorial and supporting materials before taking the test again**

# Lesson Plan      Understanding Multiplication

Secondary Courseware    Skill Level 3

## Lesson (PLATO):

Curriculum:    Foundational Math

Course:        Understanding Multiplication

Module:        Finding the Missing Number in Multiplication

## Objective/Skill Activity (PLATO):

Objective:    The learner will complete missing factor sentences pertaining to basic multiplication facts.

## Content Standard (PLATO/State):

Standard:

Goal:

## Anticipatory Set (Teacher):

Activity:    Teacher will utilize the PLATO Tutorial as the introduction to this lesson

Materials:    Computer, Projector, PLATO Courseware, Offline Activity, Smart Tools if available (CPS Chalkboard)

## Instructional Strategies (Teacher):

- Go through the tutorial as a whole group introduction to this objective
- Check the students understanding of the lesson by utilizing the PLATO Courseware and at the Practice/Application level as a whole group activity.
- Encourage collaborative explorations and discussions using the Math Tools.
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## Classroom Activities (setting, schedule, time allotment, student guided, and independent practice):

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## Closure Activity (Teacher):

Review the materials presented through the PLATO Courseware and check the students understanding of the concepts taught

**Assessment Strategy (PLATO/Teacher):**

- **PLATO Mastery test will be completed by each student and passed with a score of 80% or better.**
- **Use course level assessments as pre-tests to prescribe modules that target skill gaps.**
- **Use mastery tests as pre-tests to allow learners to “test out” of particular modules.**
- **Use printed-out journal exercises and offline activities as part of a portfolio-based assessment plan.**

**Follow-up/Comments:**

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