

Lesson Plan Understanding Fractions

Secondary Courseware Skill Level 3

Lesson (PLATO):

Curriculum: Foundational Math

Course: Understanding Fractions

Module: Understanding Fractions: Equal Parts of an Object

Objective/Skill Activity (PLATO):

Objective: The learner will apply the mental model of fractions as equal parts of objects.

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 Fractions

Secondary Courseware Skill Level 3

Lesson (PLATO):

Curriculum: Foundational Math

Course: Understanding Fractions

Module: Understanding Fractions: Equal Parts of a Collection

Objective/Skill Activity (PLATO):

Objective: The learner will apply the mental model of fractions as equal parts of a collection of objects.

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

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- 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
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- 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):

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Secondary Courseware Skill Level 3

Lesson (PLATO):

Curriculum: Foundational Math

Course: Understanding Fractions

Module: Fraction Notation: Numerator and Denominator

Objective/Skill Activity (PLATO):

Objective: Given a fraction, the learner will identify its numerator and denominator.

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):

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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:

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

Lesson (PLATO):

Curriculum: Foundational Math

Course: Understanding Fractions

Module: Proper Fractions and Improper Fractions

Objective/Skill Activity (PLATO):

Objective: The learner will identify fractions as proper or improper.

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:

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**Lesson Plan Understanding
 Fractions**

Secondary Courseware Skill Level 5

Lesson (PLATO):

Curriculum: Foundational Math

Course: Understanding Fractions

Module: Renaming Improper Fractions as Whole or Mixed Numbers

Objective/Skill Activity (PLATO):

Objective: The learners will rename improper fractions as whole numbers or mixed 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
Fractions**

Secondary Courseware Skill Level 5

Lesson (PLATO):

Curriculum: Foundational Math
Course: Understanding Fractions
Module: Finding Equivalent Fractions

Objective/Skill Activity (PLATO):

Objective: Given one fraction and a second one with its numerator or denominator missing, the learner will use multiplication to generate a fraction equivalent to the first.

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
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Secondary Courseware Skill Level 5

Lesson (PLATO):

Curriculum: Foundational Math
Course: Understanding Fractions
Module: Simplifying Fractions

Objective/Skill Activity (PLATO):

Objective: Given a fraction that is not in lowest terms, the learner will use calculation to express the fraction in simplest form.

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 (PLATO):

Curriculum: Foundational Math

Course: Understanding Fractions

Module: Working with Common Denominators and the Least Common Denominator

Objective/Skill Activity (PLATO):

Objective: Given two fractions a/b and c/d with unlike denominators, the learner will find their least common denominator and rewrite the fractions with a common denominator.

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.
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Follow-up/Comments:

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**Lesson Plan Understanding
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Secondary Courseware Skill Level 5

Lesson (PLATO):

Curriculum: Foundational Math
Course: Understanding Fractions
Module: Comparing Fractions

Objective/Skill Activity (PLATO):

Objective: Given two fractions, the learner will compare them using a standard algorithm and state which is greater, which is less, or that they are equal.

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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- 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):

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- Develop Journal prompts that encourage the learner to further extend their mathematical knowledge and make connections
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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:

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

**Lesson Plan Understanding
 Fractions**

Secondary Courseware Skill Level 5

Lesson (PLATO):

Curriculum: Foundational Math
Course: Understanding Fractions
Module: Ordering Fractions

Objective/Skill Activity (PLATO):

Objective: Given three or four fractions, the learner will compare them to each other using a standard algorithm and put them in order according to size.

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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Follow-up/Comments:

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**Lesson Plan Understanding
 Fractions**

Secondary Courseware Skill Level 5

Lesson (PLATO):

Curriculum: Foundational Math

Course: Understanding Fractions

Module: Renaming Mixed Numbers as Improper Fractions

Objective/Skill Activity (PLATO):

Objective: The learner will rename whole numbers and mixed numbers as improper fractions.

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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