|  |
| --- |
| **Grade 5 Module 3: Addition and Subtraction of Fractions** |
| **Topic A: Making Like Units Pictorially**  |   |
| **Lesson 1** | Sprint: Find the Missing Numerator or Denominator **(5.3H, 5.3K)** | Adding Like Fractions **(5.3H, 5.3K)** | Rename the Fractions **(4.3C)** |   |
| **Lesson 2** | Adding Fractions to Make One Whole **(4.3A)** | Skip Counting by ⅓ Yard **(5.3K)** |   |   |
| **Lesson 3** | Sprint: Subtracting Fractions from a Whole Number **(4.3A)** |   |   |   |
| **Lesson 4** | Name the Fraction to Complete the Whole **(4.3B, 4.3C)** | Taking from the Whole **(5.3K)** | Fraction Units to Ones and Fractions **(5.3K)** |   |
| **Lesson 5** | Sprint: Circle the Equivalent Fraction **(4.3D)** |   |   |   |
| **Topic B: Making Like Units Numerically**  |
| **Lesson 6** | Adding Whole Numbers and Fractions **(4.3A)** | Subtracting Fractions from Whole Numbers **(4.3A)** |   |   |
| **Lesson 7** | Adding Whole Numbers and Fractions with Like Units **(4.3A)** | Sprint: Add and Subtract Fractions with Like Units **(4.3A)** |   |   |
| **Lesson 8** | Sprint: Add and Subtract Whole Numbers and Ones with Fraction Units **(4.3E)** |   |   |   |
| **Lesson 9** | Subtracting Fractions from Whole Numbers **(4.3A)** | Adding and Subtracting Fractions with Like Units **(4.3E)** |   |   |
| **Lesson 10** | Sprint: Subtract Fractions with Unlike Units **(5.3H, 5.3K)** |   |   |   |
| **Topic C: Further Application** |
| **Lesson 11** | From Fractions to Decimals **(4.2E, 4.2G)** | Adding and Subtracting Fractions with Unlike Units **(5.3H, 5.3K)** |   |   |
| **Lesson 12** | Sprint: Make Larger Units **(5.3H, 5.3K)** | Happy Counting with Mixed Numbers **(4.3A)** |   |   |
| **Lesson 13** | Sprint: Circle the Smaller Fraction **(4.3D)** |   |   |   |
| **Lesson 14** | Break Apart the Whole **(4.3B)** | Make a Like Unit **(5.3H, 5.3K)** | Add Fractions with Answers Greater than 1 **(5.3K)** |  |

**Grade 5 Module 3**

**Lesson 1**

Fluency Practice (12 minutes)

⬛ Sprint: Find the Missing Numerator or Denominator 5.3H, 5.3K (8 minutes)

⬛ Adding Like Fractions 5.3H, 5.3K (2 minutes)

⬛ Rename the Fractions 4.3C (2 minutes)

**Sprint: Find the Missing Numerator or Denominator (8 minutes)**

Materials: (S) Find the Missing Numerator or Denominator Sprint

Note: Students generate common equivalent fractions mentally and with automaticity (i.e., without

performing the indicated multiplication).

**Adding Like Fractions (2 minutes)**

Note: This fluency activity reviews adding like units and lays the

foundation for today’s task of adding unlike units.

T: Let’s add fractions mentally. Say answers as whole

numbers when possible.





Continue and adjust to meet student needs. Use a variety of fraction combinations.

**Rename the Fractions (2 minutes)**

Materials: (S) Personal white board

Note: This fluency activity is a quick review of generating equivalent fractions in the largest unit possible

(simplified form), which students use as a strategy to add unlike units during today’s Concept Development.



**Lesson 2**

Fluency Practice (8 minutes)

⬛ Adding Fractions to Make One Whole 4.3A (4 minutes)

⬛ Skip-Counting by 1/3

Yard 5.3K (4 minutes)

**Adding Fractions to Make One Whole (4 minutes)**

Note: This fluency activity is a quick mental exercise of part–part–whole understanding as it relates to

fractions.



**Skip-Counting by 1/3 Yard (4 minutes)**

Note: This skip-counting fluency activity prepares students for success with addition and subtraction of

fractions between 1 and 2.

T: Let’s count by 1/3 yard. (Rhythmically point up until a change is desired. Show a closed hand, and

then point down. Continue, mixing it up.)



**Lesson 3**

Fluency Practice (12 minutes)

⬛ Sprint: Subtracting Fractions from a Whole Number 4.3A (12 minutes)

**Sprint: Subtracting Fractions from a Whole Number (12 minutes)**

Materials: (S) Subtracting Fractions from a Whole Number Sprint

Note: This Sprint is a quick mental exercise of part–part–whole understanding as it relates to fractions.

(Between correcting Sprint A and giving Sprint B, have students share their strategies for quickly solving the

problems. This very brief discussion may help some students catch on to a more efficient approach for

Sprint B.)

**Lesson 4**

Fluency Practice (10 minutes)

⬛ Name the Fraction to Complete the Whole 4.3B, 4.3C (4 minutes)

⬛ Taking from the Whole 5.3K (3 minutes)

⬛ Fraction Units to Ones and Fractions 5.3K (3 minutes)

**Name the Fraction to Complete the Whole (4 minutes)**

Note: This fluency activity is a quick mental exercise of

part–part–whole understanding as it relates to fractions.

T: I’ll say a fraction, and you say the missing part to make

one whole. Ready? 1/2.





**Taking from the Whole (3 minutes)**

Materials: (S) Personal white board

Note: This fluency activity strengthens mental math and lays the foundation for today’s Concept

Development in which students subtract from numbers between 1 and 2.

T: I’ll say a subtraction expression. You say the answer.

1 – 1 half.

S: 1 half.

T: 1 – 1 third.

S: 2 thirds.

T: 1 – 2 thirds.

S: 1 third.

T: 1 – 2 fifths.

S: 3 fifths.

T: 1 – 4 fifths.

S: 1 fifth.



**Lesson 5**

Fluency Practice (12 minutes)

⬛ Sprint: Circle the Equivalent Fraction 4.3D (12 minutes)

Sprint: Circle the Equivalent Fraction (12 minutes)

Materials: (S) Circle the Equivalent Fraction Sprint

Note: Students rapidly recognize common equivalent fractions mentally (i.e., without using multiplication or division).

**Lesson 6**

Fluency Practice (6 minutes)

⬛ Adding Whole Numbers and Fractions 4.3A (3 minutes)

⬛ Subtracting Fractions from Whole Numbers 4.3A (3 minutes)

**Adding Whole Numbers and Fractions (3 minutes)**

Note: This fluency activity reviews decomposing a mixed

number into two addends—a whole number plus a fraction.

T: I’ll say the answer. You say the addition problem

as a whole number and a fraction. 3 and 1 half.

S: 3 + 1 half.

T: 5 and 1 half.

S: 5 + 1 half.

T: 2 and 3 fourths.

S: 2 + 3 fourths.

T: 1 and 5 sixths.

S: 1 + 5 sixths.

T: Let’s switch roles. I’ll say the addition problem.

You say the answer. 2 + 1 fifth.

S: 2 and 1 fifth.

T: 2 + 4 fifths.

S: 2 and 4 fifths.

T: 5 + 7 eighths.

S: 5 and 7 eighths.

T: 3 + 7 twelfths.

S: 3 and 7 twelfths.

****

**Subtracting Fractions from Whole Numbers (3 minutes)**

Note: This fluency activity reviews subtraction of fractions. If students struggle with this activity, the problems can be written as shown in unit form.

T: I’ll say a subtraction sentence. You repeat the

sentence and give the answer. 1 – 1 half.

S: 1 – 1 half = 1 half.

T: 2 – 1 half.

S: 2 – 1 half = 1 and 1 half.

T: 2 and 1 half – 1 half.

S: 2 and 1 half – 1 half = 2.

T: 6 – 1 fourth.

S: 6 – 1 fourth = 5 and 3 fourths.

T: 6 and 3 fourths – 3 fourths.

S: 6 and 3 fourths – 3 fourths = 6.

Continue with the following possible sequence:

****

**Lesson 7**

Fluency Practice (10 minutes)

⬛ Adding and Subtracting Fractions with Like Units 4.3A (1 minute)

⬛ Sprint: Add and Subtract Fractions with Like Units 4.3A (9 minutes)

**Adding and Subtracting Fractions with Like Units (1 minute)**

Note: This quick fluency activity reviews adding and subtracting like units mentally.

T: I’ll say an addition or subtraction sentence. You say the answer. 2 fifths + 1 fifth.

S: 3 fifths.

T: 2 fifths - 1 fifth.

S: 1 fifth.

T: 2 fifths + 2 fifths.

S: 4 fifths.

T: 2 fifths - 2 fifths.

S: Zero.

T: 3 fifths + 2 fifths.

S: 1.

T: I’m going to write an addition sentence. You say whether it is true or false.

****

****

**Sprint: Add and Subtract Fractions with Like Units**

(9 minutes)

Materials: (S) Add and Subtract Fractions with Like Units Sprint

Note: This Sprint solidifies adding and subtracting fractions with

like units and lays the groundwork for more advanced work

with fractions.

**Lesson 8**

Fluency Practice (10 minutes)

⬛ Sprint: Add and Subtract Whole Numbers and Ones with Fraction Units 4.3E (10 minutes)

**Sprint: Add and Subtract Whole Numbers and Ones with Fraction Units (10 minutes)**

Materials: (S) Add and Subtract Whole Numbers and Ones with Fraction Units Sprint

Note: This Sprint strengthens prerequisite skills for today’s fractional work with sums greater than 2.

**Lesson 9**

Fluency Practice (8 minutes)

⬛ Subtracting Fractions from Whole Numbers 4.3A (5 minutes)

⬛ Adding and Subtracting Fractions with Like Units 4.3E (3 minutes)

**Subtracting Fractions from Whole Numbers (5 minutes)**

Note: This mental math fluency activity strengthens

part–part–whole understanding as it relates to fractions and

mixed numbers.

T: I’ll say a subtraction sentence. You say the subtraction

sentence with the answer. 1 – 1 half.

S: 1 – 1 half = 1 half.

T: 2 – 1 half.

S: 2 – 1 half = 1 and 1 half.

T: 3 – 1 half.

S: 3 – 1 half = 2 and 1 half.

T: 7 – 1 half.

S: 7 – 1 half = 6 and 1 half.

Continue with the following possible sequence:

****

Adding and Subtracting Fractions with Like Units (3 minutes)

Note: This fluency activity reviews adding and subtracting like units mentally.

T: I’ll say an addition or subtraction sentence.

You say the answer. 3 sevenths + 1 seventh.

S: 4 sevenths.

T: 3 sevenths – 1 seventh.

S: 2 sevenths.

T: 3 sevenths + 3 sevenths.

S: 6 sevenths.

T: 3 sevenths – 3 sevenths.

S: 0.

T: 4 sevenths + 3 sevenths.

S: 1.

T: I’ll write an addition sentence. You say true or false.

****

**Lesson 10**

Fluency Practice (12 minutes)

⬛ Sprint: Subtract Fractions with Unlike Units 5.3H, 5.3K (12 minutes)

**Sprint: Subtract Fractions with Unlike Units (12 minutes)**

Materials: (S) Subtract Fractions with Unlike Units Sprint

Note: This Sprint encourages students to strengthen their

mental math strategies while subtracting fractions with unlike

units.

**Lesson 11**

Fluency Practice (11 minutes)

⬛ From Fractions to Decimals 4.2E, 4.2G (5 minutes)

⬛ Adding and Subtracting Fractions with Unlike Units 5.3H, 5.3K (6 minutes)

**From Fractions to Decimals (5 minutes)**

Note: This fluency activity reviews decimals as they relate to

generating equivalent benchmark fractions.

T: (Write 1/10.) Say the fraction in unit form.

S: 1 tenth.

T: Say the fraction in decimal form.

S: Zero point one.

T: I’ll say a fraction in unit form. You say the fraction in decimal form. Ready? 3 tenths.

S: Zero point three.

T: 7 tenths.

S: Zero point seven.

T: (Write 1/2 = \_\_\_/10.) Say the equivalent fraction with the

missing numerator.

S: 1 half = 5 tenths.

T: Say 5 tenths as a decimal.

S: Zero point five.

T: Say 1 half as a decimal.

S: Zero point five.

****

**Adding and Subtracting Fractions with Unlike Units (6 minutes)**

Materials: (S) Personal white board

Note: Students review adding unlike units and practice assessing the reasonableness of a sum in preparation for today’s Concept Development.





**Lesson 12**

Fluency Practice (13 minutes)

⬛ Sprint: Make Larger Units 5.3H, 5.3K (10 minutes)

⬛ Happy Counting with Mixed Numbers 4.3A (3 minutes)

**Sprint: Make Larger Units (10 minutes)**

Materials: (S) Make Larger Units Sprint

Note: This Sprint reviews making like units, a prerequisite skill

for today’s work with multi-term problems.

**Happy Counting with Mixed Numbers (3 minutes)**

Note: This activity builds comfort and fluency with mixed

numbers.

T: Let’s count by 1/2 with mixed numbers. Ready?

(Rhythmically point up until a change is desired. Show

a closed hand, and then point down. Continue, mixing

it up.)

****

**Lesson 13**

Fluency Practice (12 minutes)

⬛ Sprint: Circle the Smaller Fraction 4.3D (12 minutes)

**Sprint: Circle the Smaller Fraction (12 minutes)**

Materials: (S) Circle the Smaller Fraction Sprint

Note: Students practice analyzing fractions in preparation for today’s task of assessing the reasonableness of a solution.

**Lesson 14**

Fluency Practice (15 minutes)

⬛ Break Apart the Whole 4.3B (5 minutes)

⬛ Make a Like Unit 5.3H, 5.3K (5 minutes)

⬛ Add Fractions with Answers Greater than 1 5.3K (5 minutes)

**Break Apart the Whole (5 minutes)**

Materials: (S) Personal white board

Note: Students decompose fractions greater than 1 (i.e., improper fractions) into a whole and a fraction in preparation for today’s Concept Development.





**Make a Like Unit (5 minutes)**

Materials: (S) Personal white board

Note: Students make like units, which is a prerequisite skill for advanced work with fractions.

T: What does like unit mean?

S: When you add or subtract fractions, if the

denominators are the same, then they are like units.

T: Tell your partner how we find like units.

S: (Share.)

T: I’ll say two numbers. You make a like unit and write it

on your personal white board.

T: 3 and 2.

S: (Write and show 6.)

Continue with the following possible sequence: 4 and 3; 2 and

4; 2 and 6; 3 and 9; 3 and 12; 4 and 8; 6 and 8.

**Add Fractions with Answers Greater than 1 (5 minutes)**

Materials: (S) Personal white board

Note: Students recognize and analyze fractions greater than 1

in preparation for today’s problem-solving set.

T: I’ll say an equation. You write and solve it. If the

answer is greater than 1, put a dot next to it. Leave

room to write all of the equations on your personal

white board without erasing.



