Lesson 7.2a Word Problems

Objectives	California Standards
• Solve word problems involving weights using part-whole or comparison models.	**NS 2.1**: Find the sum or difference of two whole numbers between 0 and 10,000. **NS 2.4**: Solve simple problems involving multiplication of multidigit numbers by one-digit numbers. **NS 2.5**: Solve division problems in which a multidigit number is evenly divided by a one-digit number. **AF 1.4**: Express simple unit conversions in symbolic form. **MG 1.4**: Carry out simple unit conversions within a system of measurement.

Teaching Strategies

Solve word problems using part-whole model

Have students look at the weight of the two jars in **Textbook p. 36**.

Ask students how heavy each jar is. (350 g, 1 kg 200 g)

Tell students that the empty jar weighs 350 g. The one filled with marbles weighs 1 kg 200 g.

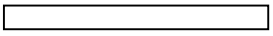
Ask students what they need to find. (Weight of the marbles) What do they know? (Weight of the empty jar and weight of the jar with marbles.)

Tell students that they need to find the weight of the marbles. How heavy the empty jar is and the weight of the jar and the marbles together is given in the Textbook.

Ask students how to show this in a model.

Tell students to draw a part-whole model where 1 kg 200 g is the total and 350 g is one of the parts.

Draw 1 long bar. Do not label it just yet.



Ask students the following.

- How many parts do they have? (2)
- How big is each part? (One larger than the other.)
- Which is smaller? Which is larger? (Weight of the empty jar is smaller, weight of marbles is larger)
- What is the whole? (Weight of the jar and marbles)

Tell students to divide the bar into 2 parts, one smaller than the other. The smaller part is the weight of the empty jar, which is labeled 350 g. The whole is the total weight of the jar and marbles. They should label that 1 kg 200 g. They should put a '?' for the weight of the marbles which they are to find.

Lesson	Objectives	Materials	Resources	Standards
Chapter 3: Subtraction				**3 days**
9.3a Subtraction of Money	• Subtract money within $100, using mental math or the subtraction algorithm. • Subtract money from a multiple of $10 by mentally subtracting from 100.	• As in lesson 9.2a	TB: p. 73-75 WB: p. 74-76	NS 2.1 NS 2.4 NS 2.5 AF 1.4 MG 1.4
9.3b Word Problems	• Solve problems involving the subtraction of money.	• As in lesson 9.2a	TB: p. 75-76 WB: p. 77-80	NS 2.1 NS 2.7 NS 2.8 MG 1.4
9.3c Practice B	• Practice adding and subtracting money. • Practice word problems involving addition and subtraction of money.		TB: p. 77 EP: p. 159-162 Tests: p. 119-125 Poster: Unit 9, 2 of 2	NS 2.1 NS 2.7 NS 2.8 AF 1.4 MG 1.4
Chapter 4: Multiplication and Division				**3 days**
9.4a Multiplication of Money	• Multiply money by a 1-digit whole number. • Use estimation to check the reasonableness of the answer.	• Different bill and coin denominations that can be displayed	TB: p. 78-80 WB: p. 81-82	NS 2.4 MG 1.4 MR 2.1
9.4b Division of Money	• Divide money by a 1-digit whole number. • Use estimation to check the reasonableness of the answer.	• Bills and coins of different denominations that can be displayed	TB: p. 80-81 WB: p. 83-84	NS 2.5 MG 1.4 MR 2.1 MR 2.2 MR 2.4
9.4c Practice C	• Practice converting money between dollars and cents. • Practice multiplying and dividing money. • Practice word problems involving multiplication and division.		TB: p. 82 EP: p. 163-164 Tests: p. 127-132	NS 2.4 NS 2.5 MG 1.4 MR 2.1 MR 2.2 MR 2.4
Review				**1-2 days**
Review 9	• Review concepts learned in Unit 9.	• Appendix 9.r	TB: p. 83-84 WB: p. 85-89 Tests: p. 133-144	NS 1.0 NS 2.0 MG 1.4 MR 2.3 MR 2.4

Lesson 10.3a Adding Fractions

Objectives	**California Standards**
• Add like fractions.	**NS 3.2**: Add and subtract simple fractions.
Materials • Fraction cards	

Teaching Strategies

Add like fractions

Have students refer to the problem in **Textbook p. 97**.

Tell students that in order to find how much milk was drunk, they need to add the two amounts together.

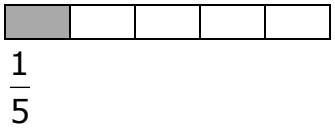
Draw two bars showing $\frac{1}{5}$ and $\frac{2}{5}$.

Tell students that from the fraction bars, they know that the total amount is $\frac{3}{5}$.

Draw in a third bar as shown.

Write on the board '$\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$'.

Tell students that when the sizes of the parts (the denominators) are the same, they just need to add the number of parts together by adding the numerator.



$\frac{1}{5}$

$\frac{2}{5}$

$\frac{3}{5}$

$\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$

Draw a rectangle and divide it into twelfths.

Tell students to pretend this is a pan of brownies.

Mandy took $\frac{5}{12}$ of it.

Color 5 twelfths red.

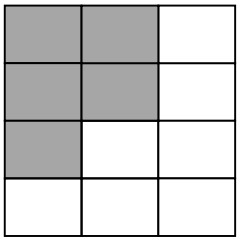
Tell students that Patricia took another three twelfths of it.

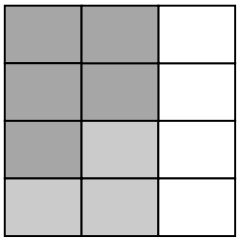
Color 3 twelfths yellow.

Ask students what the total fraction of brownies is taken away is.

Tell students that to find the answer, they need to add the two fractions.

Write on the board '$\frac{5}{12} + \frac{3}{12} = ?$'.





$\frac{5}{12} + \frac{3}{12} = ?$