

Making Equivalent Values By Multiplying Coins And Notes.

Table of Contents

Teaching Plan Overview and Summary.....	page 2
Making Equivalent Values By Multiplying Coins And Notes.....	page 3

Differentiate and Assess

Not every student will be ready to investigate this concept at this Level and so we will need to differentiate to ensure every student is learning at their leading edge. Select the Differentiate button on this screen.

Integrate

Every mathematical concept is integrally related to other mathematical concepts. Teaching and learning related concepts simultaneously develops deep relational understanding. Select the Integrate button on this screen.

Intervene

Some students may not yet be ready to investigate this concept at any Level, and so we will need to provide some intervention. Select the Intervention button on this screen.

MAKING EQUIVALENT VALUES BY MULTIPLYING COINS AND NOTES.

EXPLICIT TEACHING PLAN OVERVIEW PAGE

THIS PAGE IS A SUMMARY OF THE EXPLICIT TEACHING PLAN, INCLUDING STRATEGIC QUESTIONS, AND DESCRIBING THE SEQUENCE WHICH WILL OCCUR OVER MULTIPLE LESSONS.

RESOURCES: COINS AND NOTES, PENCIL, PAPER

WHAT COULD WE DO?

Children:

- make amounts using multiples of the same coin, for example,



- record the multiples of the same coin using multiplication, for example, $4 \times 5c = 20c$

- make the same amount using multiples of another coin, for example,



- record the multiples of the coin using multiplication, for example, $2 \times 10c = 20c$

WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

Children

- ask one another questions about making amounts using multiples of the same coin and note, for example:
 - ▶ How could we make 20 cents using multiples of the same coin?
 - ▶ How could we record the multiples of the same coin using multiplication?
 - ▶ How could we make 20 cents using multiples of another coin?

- ▶ How could we record the multiples of the same coin using multiplication?

MAKING EQUIVALENT VALUES BY MULTIPLYING COINS AND NOTES.

EXPLICIT TEACHING PLAN

FULL EXPLICIT TEACHING PLAN, EMBEDDING DEEP RELATIONAL UNDERSTANDING, METALANGUAGE, AND QUESTIONS THAT MAY BE USED OVER MULTIPLE LESSONS.

WHAT COULD WE DO?

Children think about, talk and listen to a friend about, then have the opportunity to share what they already know.

Display a 20 cent coin, for example,



Allow children to make 20 cents with 5 cent coins, for example,



WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

- ▶ Today brings an investigation about coins and notes.
- ▶ What do you know about coins and notes?
- ▶ Talk about coins and notes with a friend.
- ▶ Is anyone ready to share what they are thinking about coins and notes?

- ▶ We've investigated adding and subtracting using coins and notes.

- ▶ Today we're going to investigate making amounts of money using all the same coins.
- ▶ Here we have a 20 cent coin.
- ▶ How could we make 20 cents, in another way, using all the same coins?
- ▶ Could we make 20 cents using 5 cent coins?
- ▶ Do these 5 cents coins equal 20 cents?
- ▶ How could we check?
- ▶ Are all of the coins the same value?
- ▶ Because all of the coins are the same value, could we skip count the 5 cent coins?

Skip count by 5s as you point to each coin, for example,



Record the four 5 cent coins equals 20 cents, for example,



Record, for example, $20c = 4 \times 5c$

Allow children to make 20 cents with 10 cent coins, for example,



- ▶ Let's skip count the 5 cent coins, 5 10 15 20

- ▶ How could we record this?
- ▶ Could we record the 5 cent coins?
- ▶ Could we record that these 5 cent coins are equal to 20 cents?

- ▶ How many 5 cent coins did we need to make 20 cents?
- ▶ Did we need four 5 cent coins to make 20 cents?
- ▶ How many times do we have 5 cents?
- ▶ Do we have 5 cents, 1 time?
- ▶ Do we have 5 cents, 2 times?
- ▶ Do we have 5 cents, 3 times?
- ▶ Do we have 5 cents, 4 times?
- ▶ Do we have 4 times 5 cents?
- ▶ How could we record this using multiplication?
- ▶ Could we record that 20 cents equals 4 times 5 cents?
- ▶ Could we record it as 4 times 5 cents?
- ▶ How else could we make 20 cents, using all the same coins?
- ▶ Could we make 20 cents using 10 cent coins?
- ▶ Do these 10 cents coins equal 20 cents?
- ▶ How could we check?
- ▶ Are all of the coins the same value?
- ▶ Because all of the coins are the same value, could we skip count the 10 cent

Skip count by 10s as you point to each coin, for example,



Record the two 10 cent coins equals 20 cents, for example,

$$20c = \textcircled{10c} + \textcircled{10c}$$

Record, for example, $20c = 2 \times 10c$

coins?

- ▶ Let's skip count the 10 cent coins, 10 20

- ▶ How could we record this?
- ▶ Could we record the 10 cent coins?
- ▶ Could we record that these 10 cent coins are equal to 20 cents?

- ▶ How many 10 cent coins did we need to make 20 cents?
- ▶ Did we need two 10 cent coins to make 20 cents?
- ▶ How many times do we have 10 cents?
- ▶ Do we have 10 cents, 1 time?
- ▶ Do we have 10 cents, 2 times?
- ▶ Do we have 2 times 10 cents?
- ▶ How could we record this using multiplication?
- ▶ Could we record that 20 cents equals 2 times 10 cents?
- ▶ Could we record it as 2 times 10 cents?