

Friends of 100.

Table of Contents

Teaching Plan Overview and Summary.....	page 2
Friends of 100	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.

FRIENDS OF 100.

EXPLICIT TEACHING PLAN OVERVIEW PAGE

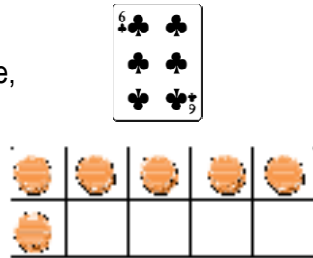
THIS PAGE IS A SUMMARY OF THE EXPLICIT TEACHING PLAN, INCLUDING STRATEGIC QUESTIONS, AND DESCRIBING THE SEQUENCE WHICH WILL OCCUR OVER MULTIPLE LESSONS.

RESOURCES: PLAYING CARDS, CONNECTING BLOCKS, PENCIL, PAPER

WHAT COULD WE DO?

Children:

- select a card to make a tens number, for example,
- place the corresponding number of counters onto a 10 frame, giving each counter the value of 10, for example,
- record as friends of 100 through addition, commutativity and subtraction, for example, $60 + 40 = 100$, $40 + 60 = 100$, $100 - 40 = 60$ and $100 - 60 = 40$



WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

Children:

- ask one another questions about friends of 100, for example,
 - what tens number have we made?
 - how could we place counters onto our 10 frame?
 - if each counter is worth 10, what would be the value of 6 counters on this 10 frame?
- what is 60's friend of 100?
- if we know 60's friend of 100 is 40, what is 40's friend of 100?
- if we know 40 and 60 are friends of 100, what will we get if we subtract 60 from 100?
- will we get 60's friend of 100?
- what will we get if we subtract 40 from 100?
- will we get 40's friend of 100?

FRIENDS OF 100.

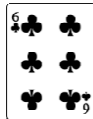
EXPLICIT TEACHING PLAN

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.

Select a card, for example,



Place 6 counters into the [10 frame](#), filling from the top left, for example,



Record, for example, $6 + 4 = 10$

Count the counters by 10s, for example, 10, 20, 30, 40, 50, 60



WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

- ▶ Today brings an investigation about Friends of 100.
- ▶ What do you know about Friends of 100?
- ▶ Talk about Friends of 100 with a friend.
- ▶ Is anyone ready to share what they are thinking about Friends of 100?

- ▶ We've investigated Friends of 10, 20 and any decade.
- ▶ Today we're going to investigate friends of 100 using tens numbers.
- ▶ What number did we select?

- ▶ Let's place 6 counters onto a 10 frame.
- ▶ What is 6's friend of 10?

- ▶ Is 6's friend of 10, 4?
- ▶ Now let's imagine that each counter on the 10 frame has a value of 10.
- ▶ If each counter is worth 10, what would be the value of 6 counters on this 10 frame?
- ▶ Could we count by 10s to find out? 10, 20, 30, 40, 50, 60.
- ▶ So these 6 counters are 60.
- ▶ How many more do we need to make 100?

Record, for example, $60 + 40 = 100$

Record, for example, $40 + 60 = 100$

Record, for example, $100 - 60 = 40$

Record, for example, $100 - 40 = 60$

- ▶ Let's count the empty spaces 10, 20, 30, 40.
- ▶ Do we need 40 more to make 100?
- ▶ What is 60's friend of 100?
- ▶ Is 60's friend of 100, 40?
- ▶ Let's record this!
- ▶ If we know that 60's friend of 100 is 40, do we know 40's friend of 100?
- ▶ Is 40's friend of 100, 60?
- ▶ Can the numbers commute?
- ▶ If we know that 60 and 40 are friends of 100, how many will we have left if we subtract 60 from 100?
- ▶ Will we have 60's friend of 100 left?
- ▶ Will we have 40 left?
- ▶ Let's record this!
- ▶ If we know that 60 and 40 are friends of 100, how many will we have left if we subtract 40 from 100?
- ▶ Will we have 40's friend of 100 left?
- ▶ Will we have 60 left?
- ▶ Let's record this!

Empty 10 frames (print, cut out separately, and distribute 1 to each child) ([back](#))

