

# Finding Difference by Adding and Taking Away.

## Table of Contents

Teaching Plan Overview and Summary.....	<a href="#">page 2</a>
Finding difference by adding and taking away.....	<a href="#">page 3</a>

### 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.

# FINDING DIFFERENCE BY ADDING AND TAKING AWAY.

## EXPLICIT TEACHING PLAN OVERVIEW PAGE

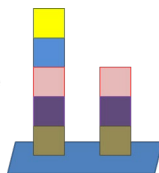
THIS PAGE IS A SUMMARY OF THE EXPLICIT TEACHING PLAN, INCLUDING STRATEGIC QUESTIONS, AND DESCRIBING THE SEQUENCE WHICH WILL OCCUR OVER MULTIPLE LESSONS.

RESOURCES: NUMBER CARDS, CONNECTING BLOCKS, PENCIL, PAPER

### WHAT COULD WE DO?

Children:

- construct 2 towers of blocks and place them side-by-side on a surface, for example,



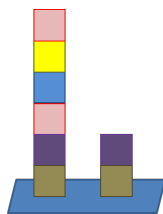
- work out the difference between the numbers of blocks in the towers by counting up from the short tower or counting down from the tall tower, for example, difference is 2

- select 2 number cards, for example,

2 6

- construct 2 towers of blocks and place them side-by-side on a surface, for example,

- work out the difference between the numbers of blocks in the towers by counting up from the short tower or counting down from the tall tower, for example, difference between 2 and 6 is 4



### WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

Children

- ask one another questions about finding difference in 2 ways, for example:

- ▶ How could we make a tower of blocks?
- ▶ How could we make a tower of a different number of blocks?
  
- ▶ How could we work out the difference between the numbers of blocks in each tower?

- ▶ Could we count up from the short tower?
- ▶ Could we count back from the tall tower?
- ▶ How many would we need to add onto the short tower?
- ▶ How many would we have to take away from the tall tower?
- ▶ What is the difference?

# FINDING DIFFERENCE BY ADDING AND TAKING AWAY.

## EXPLICIT TEACHING PLAN

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

Comment [CS1]:

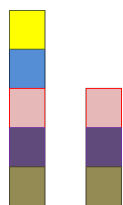
### WHAT COULD WE DO?

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

Record, for example, different

Record, for example, difference

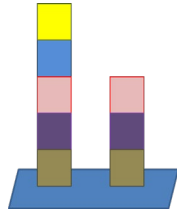
Select some connecting cubes to make 2 towers with a different number of blocks in each, for example,



### WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

- ▶ Today brings an investigation about difference.
- ▶ What do you know about difference?
- ▶ Talk about difference with a friend.
- ▶ Is anyone ready to share what they are thinking about difference?
  
- ▶ What does different mean?
- ▶ Does different mean, not the same?
- ▶ In maths we love to measure things.
- ▶ In maths, when things are different, we want to measure how different they are!
- ▶ When we measure how different they are, we are measuring their difference
  
- ▶ Let's make 2 towers of blocks, each with a different number of blocks in it.
- ▶ Which tower has more blocks?
- ▶ Does the taller tower have more blocks?
- ▶ Which tower has fewer (less) blocks?
- ▶ Does the shorter tower have fewer blocks?

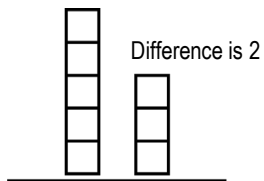
Place the towers side-by-side on the same surface, for example,



Children count up from the shorter tower to the taller tower to work out how many more the taller tower has.

Children count down from the taller tower to the shorter tower to work out how many fewer the shorter tower has.

Record, for example,



- ▶ Let's place the towers side-by-side on the table so that we can see how many more the taller tower has.
- ▶ How many would we have to add to the shorter tower to make it equal to the taller tower?
- ▶ Could we count up from the shorter tower?
- ▶ Would we have to add 2 to the shorter tower to make the taller tower?
- ▶ Does the taller tower have 2 more than the shorter tower?
- ▶ Is the difference between the 2 towers, 2 blocks?
- ▶ How many would we have to take away from the taller tower to make it equal to the shorter tower?
- ▶ Could we count down from the taller tower?
- ▶ Would we have to take away 2 from the taller tower to make the shorter tower?
- ▶ Does the shorter tower have 2 fewer (less) than the taller tower?
- ▶ Is the difference between the 2 towers, 2 blocks?
- ▶ How could we record this?
- ▶ Could we record the 2 towers?
- ▶ Could we record the difference is 2?

Numerals 0 – 10 (print, cut out and distribute to each child)

0	1	2	3
4	5	6	7
8	9	10	