

Compare 3 or More Lengths - A is Longer than B, and B is Longer than C, Then A is Also Longer than C.

Table of Contents

Teaching Plan Overview and Summary.....	page 2
Compare 3 or more lengths - A is longer than B, and B is longer than C, then A is also longer than C	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.

LENGTH A LONGER B, B LONGER C, THEN A IS ALSO LONGER THAN C.

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: STICKS, STRAWS, STRING, RIBBON, INTERCONNECTING BLOCKS, PENCIL, PAPER

WHAT COULD WE DO?

Children:

- compare 3 lengths, for example,



- explain that the ribbon is longer than the straw, and the straw is longer than the stick, so the ribbon is also longer than the stick.
- explain that the stick is shorter than the straw, and the straw is shorter than the ribbon, so the stick is also shorter than the ribbon.

WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

Children

- ask one another questions about comparing 3 lengths, for example:
 - ▶ How could we compare these lengths?
 - ▶ Is the straw longer than the stick?
 - ▶ Is the ribbon longer than the straw?
 - ▶ If the straw is longer than the stick, and the ribbon is longer than the straw, is the ribbon also longer than the stick?
 - ▶ Is the stick shorter than the straw?
 - ▶ Is the straw shorter than the ribbon?
 - ▶ If the stick is shorter than the straw, and the straw shorter than the ribbon, is the stick also shorter than the ribbon?

LENGTH A LONGER B, B LONGER C, THEN A IS ALSO LONGER THAN C.

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 objects that have length, for example, sticks, straws, string, ribbon, interconnecting blocks.

Select an object, for example, a stick



Select another object, for example, a straw.



Align the ends of the straw and the stick to compare their lengths.



WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

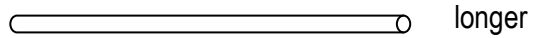
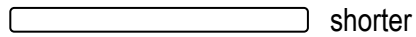
- ▶ Today brings an investigation about length.
- ▶ What do you know about length?
- ▶ Talk about length with a friend.
- ▶ Is anyone ready to share what they are thinking about length?

- ▶ How could we describe the length of this stick?
- ▶ Is the stick long?
- ▶ Is the stick short?

- ▶ How could we describe the length of this straw?
- ▶ Is the straw long?
- ▶ Is the straw short?

- ▶ How could we compare the length of the stick with the length of the straw?
- ▶ How could we place the stick and the straw in line to compare their lengths?
- ▶ Is the straw longer than the stick?
- ▶ Is the stick shorter than the straw?

Record, for example,



Select a piece of ribbon, for example,



Straighten out the ribbon, for example,



Align the ends of the straw and the stick and the ribbon to compare their lengths



► How could we record this?

► How could we describe the length of this ribbon?

► Can we tell how long the ribbon is while it's curved like this?

► Could we straighten out the ribbon?

► Now that the ribbon is straightened out, how could we describe the length of the ribbon?

► Is the ribbon long?

► Is the ribbon short?

► How could we compare the length of the stick with the length of the straw and the length of the ribbon?

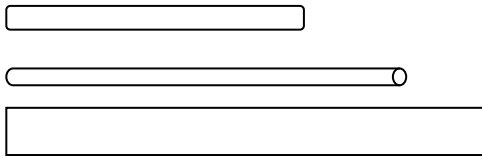
► How could we place the stick and the straw and the ribbon in line to compare their lengths?

► Is the straw longer than the stick?

► Is the ribbon longer than the straw?

► If the straw is longer than the stick, and the ribbon is longer than the straw, does that mean the ribbon is longer than the stick too?

Record, for example,



- ▶ Is the stick shorter than the straw?
- ▶ Is the straw shorter than the ribbon?
- ▶ If the stick is shorter than the straw, and the straw is shorter than the ribbon, does that mean the stick is shorter than the ribbon too?
- ▶ How could we record this?