

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

INVESTIGATIONS OVERVIEW PAGE

THIS PAGE IS A SUMMARY OF THE INVESTIGATIONS THAT STUDENTS MAY ENGAGE IN TO DEEPEN THEIR RELATIONAL UNDERSTANDING. INVESTIGATIONS WITH INSTRUCTIONS TO STUDENTS FOLLOW ON SUBSEQUENT PAGES.

- In groups of 3, each child selects a **straight length**. They compare their straight length with each other length, naming lengths longer and shorter. They place the straight lengths in order. They explain that because length A is longer than length B, and length B is longer than length C, length A is also longer than length C. *Reflection: How can we compare 3 lengths?*
- In groups of 3, each child selects a **curved length**, for example, string or ribbon. They straighten their length and then compare their straightened length with each other straightened length, naming lengths longer and shorter. They place the straightened lengths in order. They explain that because length A is longer than length B, and length B is longer than length C, length A is also longer than length C. *Reflection: How can we compare 3 lengths?*
- In groups of 3, each child selects **either a straight length or a curved length**. They compare their length with each other length, naming lengths longer and shorter. They place the straightened lengths in order. They explain that because length A is longer than length B, and length B is longer than length C, length A is also longer than length C. *Reflection: How can we compare 3 lengths?*
- Children find a stick that is longer than their hand but shorter than their foot. *Reflection: How can we compare 3 lengths?*
- Children have 2 sticks of different lengths. They find a stick whose length falls between the 2 sticks. *Reflection: How can we compare 3 lengths?*
- Children have 2 ribbons of different lengths. They find a ribbon whose length falls between the 2 ribbons. *Reflection: How can we compare 3 lengths?*
- 3 children stand in order of height. They describe their height in comparison to other children, for example, I am shorter than Tom and taller than Marina. Marina is shorter than me, so she is also shorter than Tom. Tom is taller than me, so he is also taller than Marina. *Reflection: How can we compare 3 heights?*

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

Sit with 2 friends.

Each of you select a stick of different lengths and different colours, for example, red, blue and green.

Compare the length of your stick with the length of your friends' sticks.

Is the red stick longer than the blue stick?

Is the blue stick longer than the green stick?

So is the red stick also longer than the green stick?

Is the green stick shorter than the blue stick?

Is the blue stick shorter than the red stick?

So is the green stick also shorter than the red stick?

Reflection: How can we compare 3 lengths?

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

Sit with 2 friends.

Each of you select a ribbon of different lengths and different colours, for example, red, blue and green.

Compare the length of your ribbon with the length of your friends' ribbons.

Is the red ribbon longer than the blue ribbon?

Is the blue ribbon longer than the green ribbon?

So is the red ribbon also longer than the green ribbon?

Is the green ribbon shorter than the blue ribbon?

Is the blue ribbon shorter than the red ribbon?

So is the green ribbon also shorter than the red ribbon?

Reflection: How can we compare 3 lengths?

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

Sit with 2 friends.

Each of select either a stick or a ribbon of different lengths and different colours, for example, red, blue and green.

Straighten out the ribbon.

Compare the lengths of the sticks and ribbons.

Is the red length longer than the blue length?

Is the blue length longer than the green length?

So is the red length also longer than the green length?

Is the green length shorter than the blue length?

Is the blue length shorter than the red length?

So is the green length also shorter than the red length?

Reflection: How can we compare 3 lengths?

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

Select a stick that is longer than your hand but shorter than your foot.

Select a ribbon that is longer than your hand but shorter than your foot.

Reflection: How can we compare 3 lengths?

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

Select 2 sticks of different lengths.

Select another stick that is longer than the short stick and shorter than the long stick.

Select 2 ribbons of different lengths.

Select another ribbon that is longer than the short ribbon and shorter than the long ribbon.

Reflection: How can we compare 3 lengths?

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

Find 2 friends, for example, John and Betty.

The 3 of you stand in order of height.

Explain that if John is taller than you, and you are taller than Betty, then John is also taller than Betty.

Reflection: How can we compare 3 lengths?