Explain:

- *If you know your own height you can always use it as a reference to estimate someone else's height.*
- *Starting with your own height, you can use your hands to measure the difference between you and the other person.*

Demonstrate using your own height and hand measures to estimate the height of a volunteer, or, show students how to estimate **your** height if they know their own.

This involves adding the extra centimetres if the person is taller than you, or subtracting them if the other person is shorter.

Explain:

- *Everyone should now practice estimating the heights of at least two other people.*

When they have done this get them to check their estimates with a tape measure.

They should then record the height of each person they measured and practice, either in writing or orally, describing heights using terms such as:

'Armindo is 161 cm tall.'
'Elisa's height is 151 cm.'

How much taller?

Ask for two volunteers of different heights to come to the front.

Indicate the difference (extra centimetres) between them.

Explain:

- *We call this the **difference** between their heights.*
- *We could say that Elisa is 10 cm **shorter than** Ahmindo*
  *Or Ahmindo is 10 cm **taller than** Elisa.*

Students should now work with people that they did not measure before.

Explain:

- *Now **estimate** the difference between your height and the other person's using your hand measures.*
- *Make up sentences to describe this.*

For example:

- *Sonia is approximately 12 cm taller than Aaron*
- *Aaron is about 12 cm shorter than Sonia.*
- *The difference between Sonia's height and Aaron's height is 12 cm.*

Extension for subtraction practice

Ask students to record all of their heights in a table on the board.

Demonstrate how the difference in height can be calculated using subtraction. Use your own height and one or two of the students' heights to model the process.

Ask students to select at least 5 other students and **calculat**e the difference in their heights by subtracting.

Students should be encouraged to check all of their subtractions using addition.

Steps to follow this could include:

- Describe these differences using the language models used before.
- Use tape measures to check the calculations of height difference.

Extension for language and estimating at home

Ask students to describe themselves and their heights in relation to their family members, housemates or a group of friends. Estimate how much taller/shorter they are than the other people and write three or more sentences to describe them.

Follow up

Other length/distance comparisons
Select several lengths or distances in the room or building and go through a similar set of steps, this time using language such as: shorter/longer than, widest/narrowest, further than/closer to etc.

For weight comparisons
Use a collection of objects of diverse weights and a set of scales. Encourage students to estimate and weigh the objects, calculate difference and write statements. Language would include: heavier/lighter, lightest, etc

For volume/capacity comparisons
Use a collection of containers (jars, cups, bottles, spoons) and various sized measuring jugs, cups and medicine glasses. Students could order the containers according to size, practise language such as third smallest/biggest etc, before measuring the volumes and calculating and describing differences between them. Language would include; holds more/less than, has a bigger/smaller volume/capacity than, etc.