



Makes Maths Fun

Level 6

LENGTH

Bloomsmath is a comprehensive mathematics program which provides a fun way for every student to be learning to the best of their ability.

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Length

Level 6 is designed for students in their sixth year at school often called Year 5. Students will select and use the appropriate unit and device to measure lengths, distances and perimeters.

Knowledge: Students will measure lengths in centimetres and millimetres to answer a riddle.



Students who demonstrate proficiency in this activity move on to Comprehension.



Students stop here as they require additional teacher support to master this activity.

Comprehension: Students will measure and compare various parts of their body.



Students who demonstrate proficiency in this activity move on to Application.



Students stop here if time has run out or they require additional support with this activity.

Application: Students will compare their table with other students to decide which measurements can be used to predict actual height.



Students who demonstrate proficiency in this activity move on to Analysis.



Students stop here if time has run out or they require additional support with this activity.

Analysis: Students will measure a number of Kindergarten students to see if their hypothesis works on young children.



Students who demonstrate proficiency in this activity move on to Synthesis.



Students stop here if time has run out or they require additional support with this activity.

Synthesis: Students will measure a number of teachers students to see if their hypothesis works on adults.

Evaluation: Suggested questions provide a starting point for discussions related to Length.



Students may complete more or fewer activities for each learning outcome depending on the time allocated and their strength in the area being covered.



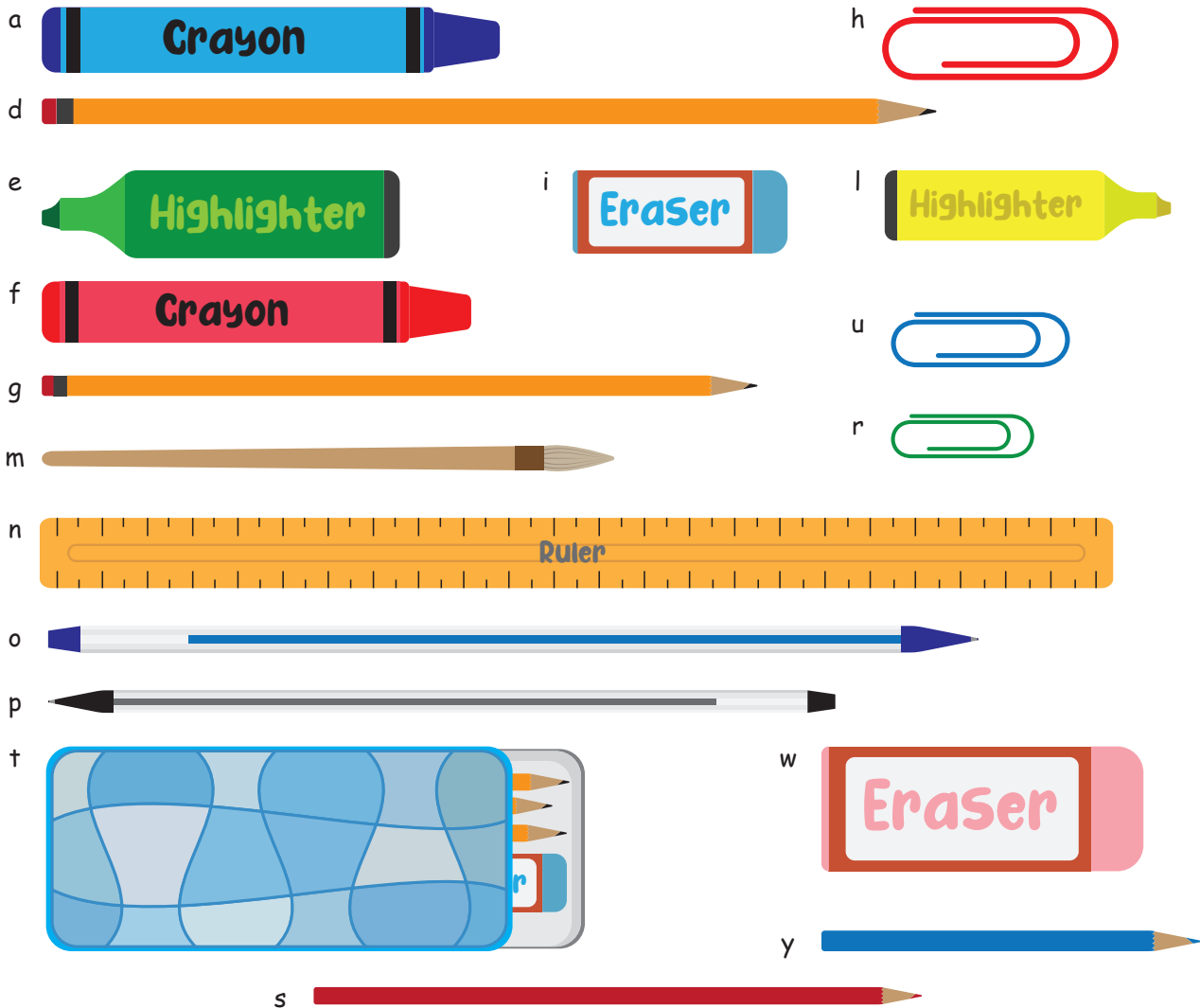
All students should participate in the Evaluation discussion to encourage the use of mathematical language, logical reasoning and reflection on that which they have completed.

Name: _____

Knowledge

Measure each length below in centimetres and millimetres to answer the riddle.

What did one maths teacher say to the other?



2.9cm 43mm 12.6cm 2.4cm 3.9cm 121mm 9.7cm 126mm 72mm 126mm

62mm 14.5cm 5.1cm 39mm 48mm 145mm 9.7cm 7.2cm 33mm 82mm

7.2cm 126mm 5.8cm 2.9cm 145mm 121mm 6.2cm

7.7cm 4.8cm 62mm 8.2cm 24mm 2cm 2.9cm 14.5cm 97mm 7.2cm 62mm 10.6cm 48mm



Let's Try This Again



Progress To Comprehension

Name: _____

Comprehension

In the space below record measurements for you and your 3 classmates' body parts.

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

You:

Classmate 1:

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

Classmate 2:

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

Classmate 3:

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	



Let's Try This Again



Progress To Application

Length - Level 6 - Students will select and use the appropriate unit and device to measure lengths, distances and perimeters.

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation

Name: _____

Application

Compare the sets of data below to see which pieces of data can be used to predict actual height.

	You	Classmate 1	Classmate 2	Classmate 3
Leg to Height				
Torso to Height				
Foot to height				
Arm 1 to height				
Arm 2 to height				
Hand to height				
Neck to height				
Head to height				

Compare your findings with 3 other students to see if they correlate and can be used to predict actual height.

Length - Level 6 - Students will select and use the appropriate unit and device to measure lengths, distances and perimeters.

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation



Let's Try This Again



Progress To Analysis

Name: _____

Analysis

Repeat this process for 4 Kindergarten students and see if your hypothesis still works.

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

Kindy Student 1:

Kindy Student 2:

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

Kindy Student 3:

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

Kindy Student 4:

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

Length - Level 6 - Students will select and use the appropriate unit and device to measure lengths, distances and perimeters.

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation



Let's Try This Again



Progress To Synthesis

Name: _____

Synthesis

Repeat this process again with 4 adults around the school and see if your hypothesis still works.

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

Adult 1:

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

Adult 2:

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

Adult 3:

Adult 4:

Body Part	Length in Cms
Leg (Thigh to heel)	
Torso (Around belly button)	
Foot (Heel to big toe)	
Arm 1 (Tip of middle finger to elbow)	
Arm 2 (Wrist to elbow)	
Hand (Tip of middle finger to wrist)	
Neck Circumference	
Head circumference	

Length - Level 6 - Students will select and use the appropriate unit and device to measure lengths, distances and perimeters.

Knowledge

Comprehension

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Analysis

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Let's Try This Again



Progress To Evaluation

Evaluation

The following questions and activities are provide as a starting point for fun discussions related to Length. During these conversations students will have an opportunity to use appropriate mathematical language in its correct context, to engage in reflection on the Length activities they have completed and to use logical reasoning to tie their in-class mathematics to its everyday context.



Draw lines on the board and have students predict the lines length and then measure it to improve their prediction skills.



Discuss different hypothesis students had related to height and body parts and how these were the same and different.



Was there a difference is findings between Year 5 student measurements, Kindergarten student measurements and adult measurements?



Have students suggest ways by which their hypothesis may change with age.



Use a height versus age scale for children to see how their data compares to medical science.



Use a similar height versus age scale for adults and see how this compares and at what age the graph plateaus.

