Reasoning and Problem Solving - Length and Perimeter Consolidation - Year 3

| 1. | Ring of light | Spear | Shrinking potion | Sword | Growing potion | Eric the snail |
|----|---------------|--------|---------------------|--------|----------------|----------------|
| | Millimetres | Metres | Centimetres | Metres | Centimetres | Millimetres |

2. Any reasonable estimates using correct units should be considered correct. Exact answers given below for reference.

| Ring of light | Spear | Shrinking potion | Sword | Growing potion | Eric the snail |
|---------------|-------|---------------------|-------|----------------|----------------|
| 100mm | 2.95m | 41.7cm | 1.5m | 62.5cm | 83mm |

| 3. | Part A (mm) | Part B (mm) | Part C (mm) | Part D (mm) | Total (mm) | Total (cm and mm) |
|----|-------------|-------------|-------------|-------------|------------|----------------------|
| | 45mm | 90mm | 25mm | 105mm | 265mm | 26cm and 5mm |

4. Case 1: Wand 1 and Wand 2.

Case 2: Wand 4, Staff 2 and Staff 3.

Case 3: Wand 3, Staff 1 and Staff 4.

- 5. The footprints could belong to the Snot-gargling Manitog, the Great and Terrible Flunge, the Fivetoed Farnwalla or the Sobbling Podgefoot.
- 6. No, Vulf has not got the order right. 3560mm is taller than 3m and 52cm, and 6m and 125mm is taller than 606cm. It should read: 3m and 52cm, 3560mm, 606cm, 6m and 125mm.

7a. 407m

7b. 125.5m

7c. 335.5m

8. Yes, they will be able to reach the claw. Children will need to show they have converted the different heights to one unit of measurement.

Millimetres: 1680mm + 1070mm + 2000mm + 1350mm = 6100mm. The claw is at 6090mm.

Centimetres: 168cm + 107cm + 200cm + 135cm = 610cm. The claw is at 609cm.

Metres: 1.68m + 1.07mm + 2m + 1.35m = 6.1m. The claw is at 6.09m.

9a. 115m and 97cm.

9b. 27m and 72cm.

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