**Activity 19.1**

**Measuring variation - Skills**

**A03.3** Observing, measuring and recording

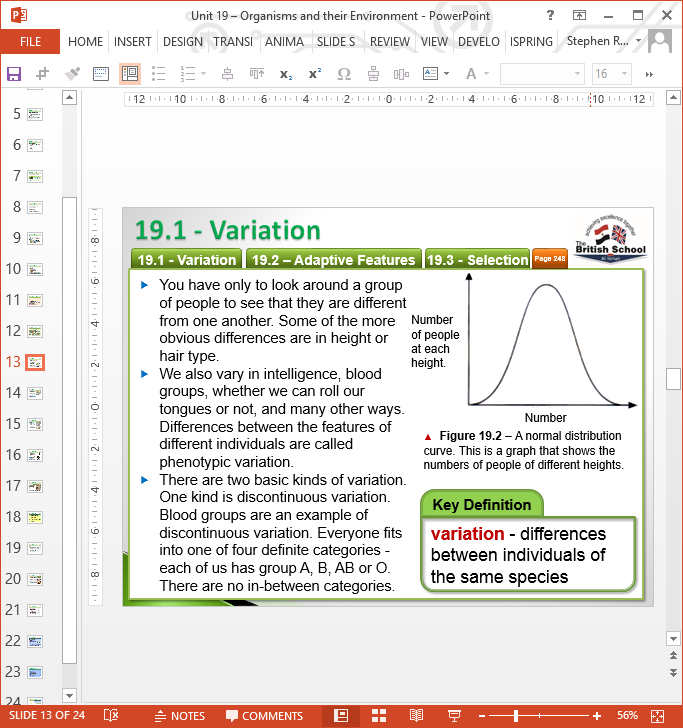
**A03.4** Interpreting and evaluating observations and data

1. Make a survey of at least 30 people, to find out whether or not they can roll their tongue. Record your results.

|  |  |
| --- | --- |
| **Length/cm** | **Number of measurements** |
| 8.0 – 8.4 | 2 |
| 8.5 – 8.9 | 4 |

1. Measure the length of the third finger of the left hand of 30 people. Take the measurement from the knuckle to the fingertip, not including the nail.
2. Divide the finger lengths into suitable categories,   
   and record the numbers in each category, like this.
3. Draw a histogram of your results.

**Questions**

**A1** Which characteristic shows continuous variation, and which shows discontinuous variation?  
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**A2** Your histogram may be a similar shape to the curve in figure right. This is called a normal distribution. The category, or class, which has the largest number of individuals in it is called the modal class. What is the modal class for finger length in your results?  
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**A3** The mean finger length is the total of all the finger lengths, divided by the number of people in your sample. What is the mean finger length of the sample?  
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