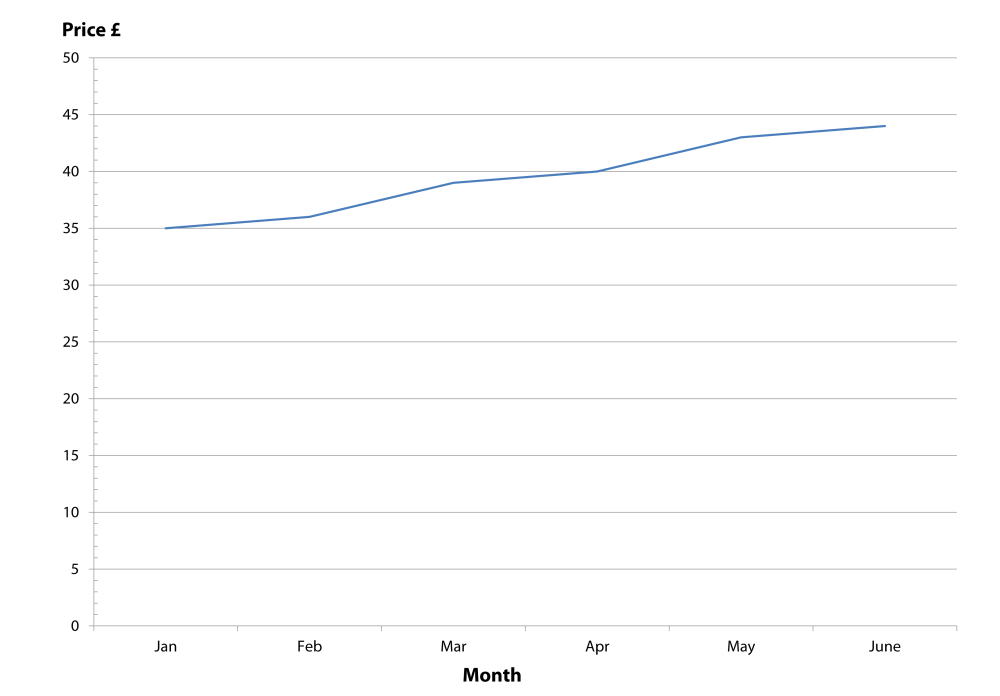
# Lesson Element

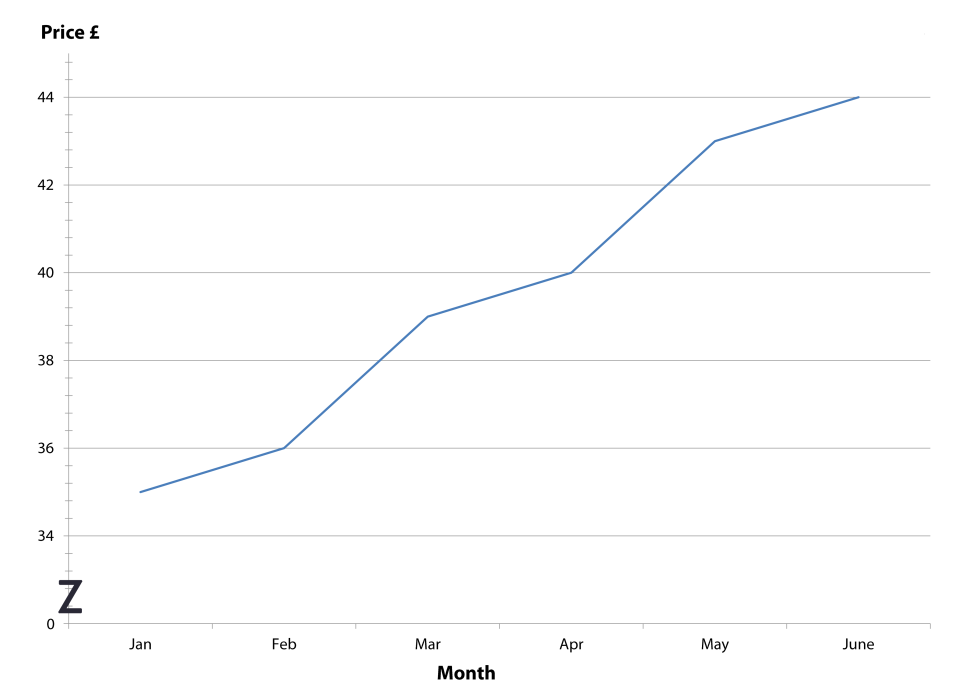
# Responding to unseen data

## Task 1 – Scale matters: class discussion

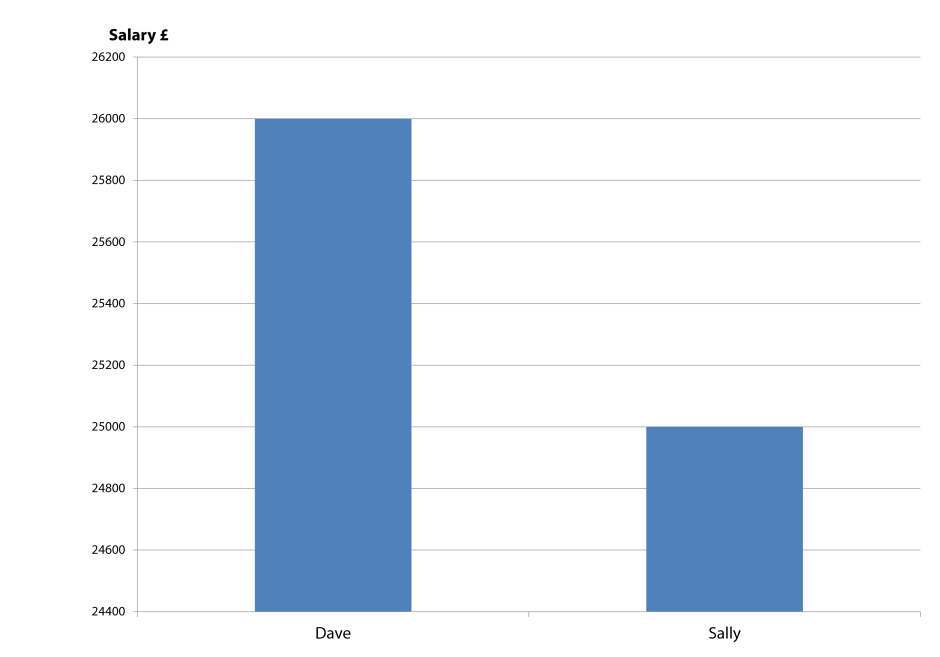
**Graph A**

****

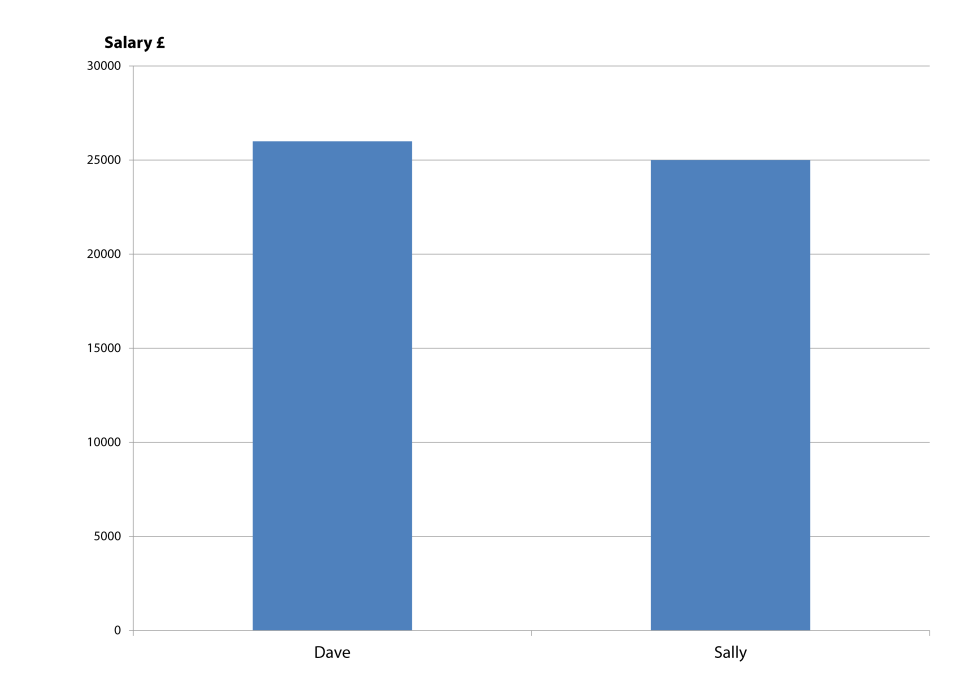
**Graph B**

****

**Bar chart A**

****

**Bar chart B**

****

**Discuss the following:**

1. What does Graph A show?
2. What impression do you get? What message does it give?
3. What does Graph B show?
4. What impression do you get? What message does it give?
5. What is the difference between Graph A and Graph B?
6. What does Bar chart A show?
7. What impression do you get? What message does it give?
8. What does Bar chart B show?
9. What impression do you get? What message does it give?
10. What is the difference between Bar chart A and Bar chart B?
11. Why is it important to take note of the vertical scale (especially in an exam)?

### Task 2 – Identifying graphical trends: card sorting activity

Cut out the following cards to create a matching activity.   
Identify which graph matches which description.

|  |  |  |
| --- | --- | --- |
| **E**  **There has been a dramatic downturn in the market** | **I**  **The market is extremely volatile** | **L** |
| **L**  **Sales fell slightly in the final quarter** | **J**  **The share price has bottomed out** | **A** |
| **C**  **The sudden collapse in wheat prices has surprised everyone** | **H**  **The market is showing some signs of growth** | **K** |
| **K**  **The price reached a peak before falling a little and then maintained the same level** | **D**  **Sugar prices peaked at £300 a tonne** | **B** |
| **G The marketing budget has stabilised over the past few years** | **H** | **E** |
| **B**  **There has been a steady increase in fuel costs over several years** | **C** | **D** |
| **A**  **The value of shares has shown a steady decline** | **F** | **J** |
| **F**  **The investment level rose sharply** | **G** | **I** |

### Task 3 – Describing graphical trends: resource sheet

**Data types**

Number

Quantity

Amount

Level

Value

Absolute

Relative

Proportion

Percentage

Fraction

Ratio

Real

Nominal

**Upwards movement**

went up

increased

grew

rose

pushed up

expanded

extended

sky rocketed

**Downwards movement**

dropped

fell

slumped

plunged

declined

decreased

sank

went down

downturn

collapsed

plummeted

**Change in direction**

reached a peak

peaked

reached its highest level

fell to a low

bottomed out

reversal

volatility

levelled off

flattened out

stabilised

**Size of movement**

slightly

a little

a lot

sharply

suddenly

dramatically

steeply

gradually

gently

steadily

**No movement**

remained steady

did not change

remained constant

remained stable

maintained

### Task 3 – Describing graphical trends: newspaper activity

Take a newspaper and look at the business/financial section. Find at least 2 different types of graphs/charts. Cut the graphs from the newspaper and paste into your notes. Complete the questions for each graph.

**Graph/chart 1**

Read the title, what is the graph about? Are the figures absolute or relative? What are the units?

What type of graph is it? For what purpose is this type of graph normally used?

Which features of the graph make it difficult to interpret?

Look at the source, what bias, if any, could there be?

Using the appropriate words on the resource sheet, carefully describe what the data on the   
graph shows.

### Task 4 – Handling complex unseen data

**Tips to improve your performance:**

* Spend time getting a feel for the data provided
* Read titles and headings carefully
* Note the source and possibility of bias
* If primary data, note the method of collection and size of sample – they affect validity
* Note whether the numbers are absolutes or relative
* Note whether real or nominal values are shown (if appropriate)
* Note the units and magnitude
* Read any foot notes
* Consider the impact the scale has on the interpretation of the data
* Identify any trends: upwards, downwards, cyclical, seasonal
* Look for correlation and relationships (do not assume that they are causal)
* Extract important points from the data
* Do not reproduce the data, use it to support your points
* Remember that description is not analysis – if you are asked to analyse then you must  
  consider the impact of the data on the organisation or its stakeholders.

### Task 4 – Rate of change: ‘give me five’

Study the rate of change graph displayed. Take care it is quite complicated.

Write down 5 statements about what the graph shows – ensure that you have not made assumptions – be prepared to share your answers.

1

🗶✓

5

🗶✓

5

🗶✓

4

🗶✓

3

🗶✓

2

🗶✓