Technology Activity

Activity A:

Activity B:

1000-

400-

200-
SEND: Work for Submission

Following the sequence of videos listed in Lesson 1 questions write a reflection paragraph about your learning.

(1 min) Why do we need to collect data?
http://www.bbc.co.uk/skillswise/video/collecting-data

(1 min) Why use lists and tables?
http://www.bbc.co.uk/skillswise/video/lists-and-tables

(1 min) Why learn about charts and graphs?
http://www.bbc.co.uk/skillswise/video/graphs-and-charts

Having viewed these videos I now understand that:

- Collecting data is very important for business
to... run smoothly...

- Charts are vital for keeping track of important

- Progress is measured by graphs...

- You can tell stories in... charts using graphs...

Skill Builder 1 Score: Skills to work on: 3/10

1. Can you name 4 things that all graphs have in common?
   a) Title
   b) Axis labels
   c) Scale
   d) Legend

Questions 2 – 4: Circle the correct answer:

2. The range of a graph is associated with the
   A: horizontal axis
   B: y axis
   C: independent variable

3. Interpreting from a graph means ...
   A: to estimate the value within a given scale
   B: providing less information than is required
   C: to estimate the value beyond a given scale
   D: selecting the most appropriate scale

4. A dependent variable is ...
   A: a quantity that can assume any of a set of values
   B: represented on the horizontal axis
   C: a variable whose value is determined by the value of another variable
   D: a variable whose value determines the value of another variable

5. The following graph compares the test results a student would expect to get given a particular weekly score.

A student that scores 60 in his weekly scores would expect to get which of the following test results?

A: 40
B: 50
C: 60
D: 70
6. The faster you are moving, the longer it takes you to stop. The table below shows the stopping distance at different speeds.

<table>
<thead>
<tr>
<th>Speed (km per hr)</th>
<th>Stopping Distance (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>30</td>
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<td>50</td>
<td>32</td>
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<td>65</td>
<td>50</td>
</tr>
<tr>
<td>80</td>
<td>72</td>
</tr>
<tr>
<td>100</td>
<td>104</td>
</tr>
</tbody>
</table>

(a) Work out a scale for Speed and for Stopping Distance.

(i) What is the dependent variable? Stopping Distance
What scale will you use: 10 m increases
(ii) What is the independent variable? Speed
What scale will you use: 10 km increases

Use the grid paper on the page that follows to draw a graph of this data. Send in this graph. The following steps may help.

(b) Label each axis and use an appropriate scale on each axis. Then plot the points and rule a line between each point.
(c) Give your graph a title.
Use your graph to answer the following questions:

(d) Use interpolation to work out the stopping distance when you are travelling at:

(i) 40 km per hour
(ii) 20 km per hour

(e) Complete the following sentence:

The range lies between the values... and ...

The domain lies between the values... and ...

(f) Use your graph, through extrapolation to explain in a meaningful sentence how much stopping distance is needed (in metres) to stop when travelling at 110 kilometres per hour.

Projecting the curve upward I have determined that from a speed of 110 kilometres per hour it will take... to come to a stop.
STUDENT NUMBER: 82594
STUDENT NAME: Annika

SUBJECT: MATHEMATICS
MODULE: E
WEEK: 1
TEACHER: Elizabeth Portelli

PLEASE CHECK THAT YOU HAVE ATTACHED:
- Skill Builder 1
- Your answers to SEND questions
- Your Excel graph from Zac’s Cafe – Technology Activity

THINKING ABOUT YOUR LEARNING

I understand what domain and range mean.

I need help with remembering interpolating and extrapolating.

YOUR QUESTIONS AND COMMENTS PLEASE

<table>
<thead>
<tr>
<th>LESSON</th>
<th>I need help!</th>
<th>I know it well</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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Roughly how long did you spend on this week’s work? 2½
Were the instructions clear? Yes
If you want to make a comment, answered NO or found any errors please let us know.

DISTANCE EDUCATION CENTRE TEACHER’s COMMENTS

This week, your work was:
- Complete
- Incomplete
- Neat
- Difficult to read
- Done to a high standard
- Satisfactory
- Requires more effort and/or you need to ask for assistance
- Requires resubmission

You have shown good understanding of:

Other comment:

DISTANCE EDUCATION CENTRE TEACHER