|  |  |  |  |
| --- | --- | --- | --- |
| Voltmeter  C:\Documents and Settings\PaulR\Desktop\NewEDocs\Additional\E230s\voltmeter1.wmf | Ammeter (digital)  C:\Documents and Settings\PaulR\Desktop\NewEDocs\Additional\E230s\ameter digital.wmf | Balance  E:\Equipment extras\Balance thumbnail.JPG | Beaker  ..\..\Thumbnails\beaker drawn.jpg |
| Boiling tube  ..\..\Thumbnails\Boiling tube.jpg | Test tube  ..\..\wmfs\3d versions\test tubes.wmf | Burette  C:\Documents and Settings\PaulR\Desktop\CD-ROM 2007\JohnO Equipment Diagrams\Burette.wmf | Bunsen burner  Colour bunsen thumbnail.JPG |
| Test-tube rack  E:\Equipment extras\TT rack thumbnail.JPG | Boss  ..\..\Thumbnails\Boss drawn.jpg | Clamp  E:\Thumbnails\Clamp drawn.jpg | Clamp stand  ..\wmfs\Stand drawn.wmf |
| Tongs  C:\Documents and Settings\PaulR\Desktop\CD-ROM 2007\JohnO Equipment Diagrams\Tongs.wmf | Measuring cylinder  ..\..\Thumbnails\Measuring cylinder.jpg | Evaporating basin  E:\Thumbnails\Basin drawn.jpg | Tripod |
| Flask (conical)  E:\Thumbnails\Conical flask drawn.jpg | Flask (round-bottom) | Flask (volumetric) | Funnel  ..\..\Thumbnails\funnel drawn.jpg |
| Gas jar and spoon  \\SCIENCE\Locked\EDocuments\E229\Additional Graphics\Gas jar and spoon\Gas jar and spoon.wmf | Gas syringe  C:\Documents and Settings\PaulR\Desktop\Gas Syringe PR.wmf | Gauze | Hanging weights  Hanging weights thumbnail.JPG |
| Inoculation loop  \\SCIENCE\Locked\EDocuments\E229\Additional Graphics\Innoculation loop\loop.wmf | Kettle | Wash bottle  ..\wmfs\Wash bottle drawn.wmf | Microscope  C:\Documents and Settings\PaulR\Desktop\CD-ROM 2007\JohnO Equipment Diagrams\Microscope drawn.wmf |
| Pestle and mortar  E:\Thumbnails\pestle & mortar drawn.jpg | Petri dish  \\SCIENCE\Locked\EDocuments\E229\Additional Graphics\Petri dish\Petri drawn.wmf | Pipe-clay triangle  C:\Documents and Settings\PaulR\Desktop\CD-ROM 2007\JohnO Equipment Diagrams\Triangle drawn.wmf | Pulley  Pulley thumbnail.JPG |
| Thermometer  E:\Thumbnails\Thermometer.jpg | Safety glasses | Scalpel  \\SCIENCE\JohnO\Equipment diagram revision\Scalpel thumbnail.JPG | Clip (Hoffman)  Additional Graphics\Clip Hoffman\Clip Hoffman.wmf |
| Scissors  Scissors thumbnail.JPG | Spatula  \\SCIENCE\Locked\EDocuments\E229\Additional Graphics\Spatula\Spatula drawn.wmf | Stopclock  \\SCIENCE\Locked\EDocuments\E229\Additional Graphics\Stopclock\Stopclock.wmf | Water bath (electric)  \\SCIENCE\Locked\EDocuments\E229\Additional Graphics\Water bath electric\Electric water bath.wmf |

**Writing Conclusions**

**Step 1: Describe the trend in a graph or in data.**

1. **Use adjectives** e.g. heavier, hotter, faster, higher, bigger, smaller

e.g. The **hotter** the water the **faster** the bubbles are released.

1. Use this **model sentence** & fill in the gaps with the names of **variables**. **As the** ……….. increases, **so the** ….…………increases / decreases

e.g. As the **number of batteries** increases so the **current** increases.

**Step 2: Comment on how good the trend is using your results.**

|  |  |  |  |
| --- | --- | --- | --- |
| **TREND** |  | **RESULTS** |  |
| There is a **very strong** trend | **.... because ....** | Results are **very close** to the best fit line |  |
| There is a **clear** trend | **.... because ....** | Results are **quite near** to the best fit line |  |
| There is a **possible** trend | **.... because ....** | Results are **scattered around** the line |  |
| There is a **weak** trend | **.... because ....** | Results are **scattered widely** around the best fit line. |  |
| There is **no** trend | **.... because ....** | Results are **so scattered** I can’t draw a best fit line. |  |

e.g. The trend is **weak** because the results are **scattered widely around** the best fit line

**Step 3: State a conclusion - Answer the original question (in the aim.)**

**I have found out that …….**

**My experiment has shown that ……..**

**Step 4: Explain the conclusion**

Use the science you know to explain your conclusion.

**This trend happens because ………**

**The speed of the reaction increases because …….**

**This can be explained using ….. theory.**

**Step 5: Evaluate the experiment**

1. **How close are your repeats ?**

If repeated results are the same your results are very reliable.

1. **How many results ?**

If you have too few results you cannot be sure of the trend.

1. **How accurate were your measuring instruments ?**

The more accurate they were the better.

1. **Considering everything**, how confident are you about your conclusion.

Put all the factors together – are you confident or do you think you might get a different result another time?