**Practical Investigations Checklist**

*Each box represents what must be included for you to achieve full marks in your practical investigation. Check off each point as you include it in your investigation write-up.*

**Planning**

(P1) The investigation has a descriptive title

(P2) An aim of the investigation is given.

(P3) A hypothesis is included

(P4) An explanation is given for the logic behind your hypothesis **and** size of the results you expect

(P5) A list of the independent, dependent and controlled variables is included.

(P6) An explanation of how you will control your variables in included

(P7) A specific list of your materials and apparatus is included

(P8) A description of your method is included.

(P9) The method is specific - detail, detail, detail! Can it be repeated based on only reading your method?

(P10) There are enough samples and replications of each treatment to make a reliable conclusion.

(P11) There is a diagram to help understanding the experimental setup and they have descriptive titles.

**Obtaining Evidence**

(OE1) Only the data you have recorded is included in this section

(OE2) A table is used to collate your data

(OE3) Tables have descriptive titles

(OE4) Column and row headings are bolded

(OE5) Units are given in table and row headings

(OE6) The data collected is precise and written with an appropriate number of significant figures

(OE7) You have repeated each measurement at least twice (so you have three examples of each type of reading)

**Analysing Evidence**

(A1) The raw data is manipulated to summarise the results.

(A2) Means or percentages are calculated

(A3) A summary of the data is given as a data table

(A4) A sample of all calculations is shown

(A5) Calculated data is presented to an appropriate number of significant figures

(A6) An **appropriate** graph is included

(A7) The graph has a descriptive title

(A8) The axes are labelled correctly including units

(A9) The graph has a line of best fit

(A10) You have described the trends and patterns in your evidence

(A11) You have explained these trends and patterns using detailed scientific understanding

(A12) A clear conclusion is made

(A13) You have explained the extent to which your conclusion supports your hypothesis

**Evaluation**

(E1) You have made a relevant comment about your data/method

(E2) You have identified and explained any anomalies

(E3) You have stated the extent to which the results agree/disagree with your hypothesis

(E4) You have given a detailed analysis of where errors might have occurred and how they have affected your results

(E5) A **detailed** and realistic alteration to your method based on these errors is explained.