

## AS Physics - Unit 3 - Marking grids

### A: Summary of case study or physics-based visit

Ref	Criterion	Mark
S1	Carries out a visit OR uses library, consulting a minimum of 3 different sources of information (eg books / websites / journals / magazines / case study provided by Edexcel / manufacturers' data sheets)	
S2	States details of visit venue OR provides full details of sources of information	
S3	Provides a brief description of the visit OR case study	
S4	Makes correct statement on relevant physics principles	
S5	Uses relevant specialist terminology correctly	
S6	Provides one piece of relevant information (eg data, graph, diagram) that is not mentioned in the briefing papers for the visit or case study	
S7	Briefly discusses context (eg social/environmental/historical)	
S8	Comments on implication of physics (eg benefits/risks)	
S9	Explains how the practical relates to the visit or case study	
<b>Total marks for this section</b>		

### B: Planning

Ref	Criterion	Mark
P1	Lists all materials required	
P2	States how to measure one relevant quantity using the most appropriate instrument	
P3	Explains the choice of the measuring instrument with reference to the scale of the instrument as appropriate and/or the number of measurements to be taken	
P4	States how to measure a second relevant quantity using the most appropriate instrument	
P5	Explains the choice of the second measuring instrument with reference to the scale of the instrument as appropriate and/or the number of measurements to be taken	
P6	Demonstrates knowledge of correct measuring techniques	
P7	States which is the independent and which is the dependent variable	
P8	Identifies and states how to control all other relevant variables to make it a fair test	
P9	Comments on whether repeat readings are appropriate in this case	
P10	Comments on safety	
P11	Discusses how the data collected will be used	
P12	Identifies the main sources of uncertainty and/or systematic error	
P13	Draws an appropriately labelled diagram of the apparatus to be used	
P14	Plan is well organised and methodical, using an appropriately sequenced step-by-step procedure	
<b>Total marks for this section</b>		

### C: Implementation and Measurements

Ref	Criterion	Mark
M1	Records all measurements using the correct number of significant figures, tabulating measurements where appropriate	
M2	Uses correct units throughout	
M3	Obtains an appropriate number of measurements	
M4	Obtains measurements over an appropriate range	
<b>Total marks for this section</b>		

### D: Analysis

Ref	Criterion	Mark
A1	Produces a graph with appropriately labelled axes and with correct units	
A2	Produces a graph with sensible scales	
A3	Plots points accurately	
A4	Draws line of best fit (either a straight line or a smooth curve)	
A5	Comments on the trend/pattern obtained	
A6	Derives relation between two variables or determines constant	
A7	Discusses/uses related physics principles	
A8	Attempts to qualitatively consider sources of error	
A9	Suggests realistic modifications to reduce error/improve experiment	
A10	Calculates uncertainties	
A11	Provides a final conclusion	
<b>Total marks for this section</b>		

### E: Report

Ref	Criterion	Mark
R1	Summary contains few grammatical or spelling errors	
R2	Summary is structured using appropriate subheadings	
<b>Total marks for this section</b>		

**Total marks for this unit**

