

Investigation overview: This overview has been designed to be used in conjunction with the teacher guide to support those teaching the Extended Project. The guidance is there as a starting point for teachers to build on and adapt to suit their school. A student guide is also available.

Lesson	Lesson topic	Outline	Time (min)	Resources	Key topics
Handout 1	What is an investigation?	<ul style="list-style-type: none"> Key features of the Investigation/Field Study Extended Project 	n/a	Exemplar Investigation/field study Extended Project reports(s) available here . Extended Project Investigations from your own previous learners	<ul style="list-style-type: none"> Definition of investigation Requirements for 'extension'
Handout 2	Investigation checklist	<ul style="list-style-type: none"> Checklist for planning and carrying out an Investigation 	n/a		<ul style="list-style-type: none"> Planning Recording
Handout 3	Safety and risk assessment	<ul style="list-style-type: none"> Notes on safety and risk Basic proforma for recording hazards 	n/a	Risk assessment forms as required by your own school/college	<ul style="list-style-type: none"> Hazards Risk
1	Questionnaires and surveys	<ul style="list-style-type: none"> Discussion of questionnaire design and use Activity 1: Good Questions? Activity 2: Surveying the market 	15 15 10	The Market Research Society code of conduct The Spelthorne shopping centre survey	<ul style="list-style-type: none"> Designing questionnaires Guidelines for using face-to-face and postal questionnaires

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2-3	Describing and displaying data	<ul style="list-style-type: none"> • Various variables • Descriptive statistics • Activity 3: Describing data • Using Excel • Activity 4: Displaying data 	5 10 20 15 30	Descriptive Statistics (University of Leicester) Access to computers running Excel.	<ul style="list-style-type: none"> • Continuous, discrete and categoric variables • Mean, median, mode • Error bars • Using Excel
4-5	Testing a hypothesis	<ul style="list-style-type: none"> • Use of formal language relating to hypothesis testing and significance • Exploration of correlation by plotting scatter graphs and calculating correlation coefficient • Activity 5: Look at the data • Activity 6: Look – more data! • Activity 7: Correlation • Activity 8: Join the dots 	10 10 15 15 20 5	Coin(s) or dice (ideally including some that are biased).	<ul style="list-style-type: none"> • Hypothesis • Correlation • Significance • Spearman rank correlation

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6	In the river	<ul style="list-style-type: none"> • Case study: In the river • Activity 9: That's the question • Activity 10: Preparing for fieldwork 	5 15 20 + homework	<p>Post-it notes</p> <p>Magazines such as <i>New Scientist</i>, <i>Scientific American</i></p> <p>Review magazines e.g. <i>Biological Sciences Review</i>, <i>Geography Review</i> (available from Hodder Education)</p> <p>Resources from the Field Studies Council</p> <p>Resources from the British Ecological Society</p>	<ul style="list-style-type: none"> • Project planning and execution • Standard fieldwork techniques • Scope for extension
7	Into the air	<ul style="list-style-type: none"> • Case study: Into the air • Activity 11: Extended project • Activity 12: Laboratory work 	5 20 15	<p>Review magazines e.g. <i>Physics Review</i>, <i>Chemistry Review</i>, <i>Biological Sciences Review</i> (available from Hodder Education)</p>	<ul style="list-style-type: none"> • Project planning and execution • Desirable features of laboratory-based project work • Scope for extension
8	In the town	<ul style="list-style-type: none"> • Case study: In the town • Activity 13: What to do? 	5 35	<p>Review magazines e.g. <i>Business Review</i>, <i>Geography Review</i>, <i>Sociology Review</i> (available from Hodder Education)</p>	<ul style="list-style-type: none"> • Project planning and execution • Scope for extension

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