

Animals Including Humans: Exercise Investigation

<p>Aim: To plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurement with increasing accuracy and precision, taking repeat readings when appropriate by creating an enquiry that compares and categorises different forms of exercise and by taking accurate pulse measurements to gather data.</p> <p>I can plan a scientific enquiry.</p> <p>To record data and results of increasing complexity using classification keys, tables, scatter graphs, bar and line graphs. To report findings from enquiries, including conclusions and degree of trust in results, in written forms by reporting and presenting the findings of their enquiry.</p> <p>I can record, report and present results appropriately.</p>	<p>Success Criteria: I can decide on the most appropriate type of investigation.</p> <p>I can explain which variables will be controlled.</p> <p>I can write a report about my findings that includes a conclusion.</p> <p>I can report the degree of trust I have in my results.</p>	<p>Resources: Lesson Pack BBC Learning Zone video clip</p> <p>Laptops / computers / tablets with graphing software</p> <p>Squared paper</p>
	<p>Key/New Words: Exercise, fitness, healthy, unhealthy, types, pulse, heart rate, investigation, results, record, table, graph, chart, report, degrees of trust.</p>	<p>Preparation: Exercise Investigation Activity Sheet - as required Exercise Investigation Report Activity Sheets - 1 per child</p> <p><i>This lesson is intended to be conducted over the course of an afternoon or two lessons, particularly if you want to repeat the results.</i></p>

Prior Learning: Children will have examined and understood the different types of exercises in lesson 4.

Learning Sequence

	Exercise: Watch a short clip about the importance of exercise, for example, this clip from the BBC Learning Zone. What counts as exercise? As a class, ask children what they can recall about the different types and kinds of exercise.	
	Exercise Investigation: State that the children will be creating their own enquiry about exercise. Ask children to look at the three definitions of exercise and discuss which of these could be measured.	
	Pulse: Show children how to measure their pulse and give them the opportunity to try to find their own pulse as well as measure that of another child.	
	Planning Your Investigation: Read out the information on the IWB. Place children into mixed ability groups to create their question and prediction, and to choose their investigation type. When they have chosen, give them the appropriate Exercise Investigation Activity Sheet to write up their investigation.	
	Conducting Your Investigation: Read the information about what to take into account before and while conducting the investigation, as well as the benefits of repeating results. Children will then conduct their investigation.	
	Present Findings: Read the information on the Lesson Presentation about how findings can be presented in different types of graphs and charts. Children to choose the type of graph they want to create and use either squared paper or graphing software on a computer / tablet / laptop.	
	Degrees of Trust: Highlight the difference between data that has high, as opposed to low, levels of trust. Ask children to discuss what degree of trust they can have in their data and the reasons why.	
	<p>Reporting Your Findings: All children to write up their conclusions and the degree of trust in their results using the differentiated Exercise Investigation Report Activity Sheets.</p> <div> Children write a conclusion. Children include the degree of trust in their results based on at least one of factor. Children include the degree of trust in their results based on at least two factors. </div>	
	Compare: Arrange children in groups of three to compare a poster, an information text, and a brochure. In these groups, children discuss the benefits of each of these texts as a medium to share information about healthy lifestyles.	

Task it

Diary it: Research the different types of exercise suitable for humans at different ages using the Appropriate Exercise Activity Sheet.

Research it: Children try one of the exercises from the investigation with members of their family. What was their resting rate? What was their pulse rate after the exercises? Was there a difference? Record it on the Compare Pulse Rates Activity Sheet.

Play it: Visit the [Change4Life website](https://www.change4life.org.uk/) for lots of tips and ideas to encourage a more active lifestyle.