

Taking Learning Outdoors

Learning experience and season	
STEM - Autumn	
CfE Level FIRST AND SECOND	
Experiences and Outcomes and associated benchmarks	
E&Os	Benchmarks
<p>By researching, I can describe the position and function of the skeleton and major organs of the human body and discuss what I need to do to keep them healthy. SCN 1-12a</p> <p>By investigating some body systems and potential problems which they may develop, I can make informed decisions to help me to maintain my health and wellbeing. SCN 2-12a</p> <p>I have used a range of ways to collect information and can sort it in a logical, organised and imaginative way using my own and others' criteria. MNU 1-20b</p> <p>Using technology and other methods, I can display data simply, clearly and accurately by creating tables, charts and diagrams, using simple labelling and scale. MTH 1-21a</p>	<p>Structures a presentation or report, with support, on how to have a healthy lifestyle, for example, through a balanced diet, regular exercise, sufficient sleep and by avoiding substance misuse.</p> <p>Circulatory system</p> <ul style="list-style-type: none"> · Describes the function of the circulatory system (heart and blood vessels), for example, transport of food, oxygen and waste materials. · Discusses the main preventable causes of heart disease or stroke, for example, obesity, lack of exercise, smoking and high (saturated) fat diet. <p>Selects and uses the most appropriate way to gather and sort data for a given purpose, for example, a survey, questionnaire or group tallies.</p> <p>Uses a variety of different methods, including the use of digital technologies, to display data, for example, as block graphs, bar graphs, tables, Carroll diagrams and Venn diagrams.</p> <p>Includes a suitable title, simple labelling on both axes and an appropriate scale where one unit represents more than one data value in graphs.</p>

<p>I have carried out investigations and surveys, devising and using a variety of methods to gather information and have worked with others to collate, organise and communicate the results in an appropriate way. MNU 2-20b</p> <p>I can display data in a clear way using a suitable scale, by choosing appropriately from an extended range of tables, charts, diagrams and graphs, making effective use of technology. MTH 2-21a</p>	<p>Collects, organises and displays data accurately in a variety of ways including through the use of digital technologies, for example, creating surveys, tables, bar graphs, line graphs, frequency tables, simple pie charts and spreadsheets.</p> <p>Analyses, interprets and draws conclusions from a variety of data.</p> <p>Draws conclusions about the reliability of data taking into account, for example, the author, the audience, the scale and sample size used.</p> <p>Displays data appropriately making effective use of technology and chooses a suitable scale when creating graphs.</p>
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Overview of learning experience

How does our heart rate change with exercise?

Outline of learning

LI/SC

I can measure a change in my heart rate and share my findings in a variety of ways

Resources

- Timer
- Clipboard
- Water to drink!

Description of learning experience and assessment opportunities

In the school playground.....

Locate and measure your pulse. Use the tips of your first two fingers (not your thumb) to press lightly on the inside of your wrist. Alternatively, press the same two fingers on your neck, in the hollow area just beside your windpipe.

Measure resting heart rate by counting the beats for 1 minute. . Record the number of beats. (heart rate could be measured for 30 seconds and then multiplied by 2 if easier)

Gently warm up the class by jogging on the spot for 30 seconds or jumping up and down ten times. Then measure heart rate again and write it down.

Next, think of an activity that will make your heart race, such as sprinting a short distance. Complete this exercise and then measure your heart rate.

Now look back at your measurements. What happened to your heart rate when your level of exercise increased?

This could be extended to consider the average heart of the class or an increased range of activities in order to differentiate the activity further. An experimental write up could be completed where fair test could be discussed.

Learners could also work with other classes to compare their heart rate with different activities

Microsoft Forms or other surveying tools could be used to create a healthy living survey and ask the opinion of others in the class/school about how they maintain a healthy lifestyle.

Research on Heart disease and other circulatory system conditions could be completed

Also a chance to devise a home learning activity on healthy living.

Consideration of risk

A pre-site visit would be important to assess the learning space. Ensure that any obstacles have been removed. Conduct an on-site safety briefing with the learners to ensure that they know where to work and the perimeter of their learning zone. As with PE lessons, ensure all learners have any required medication or supports in place to enable them to participate.

Taking it further – what else could you do?

A chance to consider HWB

I understand that my body needs energy to function and that this comes from the food I eat. I am exploring how physical activity contributes to my health and wellbeing.

HWB 1-28a

I can explain the links between the energy I use while being physically active, the food I eat, and my health and wellbeing. HWB 2-28a