Taking Learning Outdoors

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| Learning experience and season | |
| STEM –Autumn | |
| CfE Level  First | |
| Experiences and Outcomes and associated benchmarks | |
| E&Os  By safely observing and recording the sun and moon at various times, I can describe their patterns of movement and changes over time. I can relate these to the length of a day, a month and a year. SCN 1-06a  I have discussed the important part that numbers play in the world and explored a variety of systems that have been used by civilisations throughout history to record numbers. MTH 1-12a | Benchmarks  Describes how the Earth spins around its axis in 24 hours resulting in day and night.  Investigates and shares understanding of the importance of numbers in learning, life and work. |
| Overview of learning experience | |
| Making a sundial | |
| Outline of learning | |
| LI/SC  I can describe the pattern of movement of the sun in a day | Resources  Playground Chalk  Rope  Canes |
| Description of learning experience and assessment opportunities  The idea of this lesson is to make a sundial to show how shadows change during the day and so show how the Sun moves.  In the playground mark a central position where a learner can stand. On grass use a cane or a cone with a cane on top. Get a learner to stand at the centre and then mark where the shadow falls, record the time and date. Repeat during the day. This will show how the shadow moves around because the sun is moving in the sky. Measure the lengths of the shadows which will show that the sun gets higher in the sky. What time is the shortest shadow? This can be taken further by showing that over a period of time, the shadows always fall at the same place at the same time of day, but the length changes as we move through the seasons. This can be related to the tilt of the Earth.  [Making a Simple Sundial | Learning Outdoors Support Team (glowscotland.org.uk)](https://blogs.glowscotland.org.uk/ea/learningoutdoorssupportteam/making-a-simple-sundial/) | |
| Consideration of risk | |
| Visit the area beforehand and assess any risks, removing any hazards.  Identify any areas that are out of bounds. Verbally discuss this in the outside space. Importance of handwashing before and after going outside | |
| Taking it further – what else could you do? | |
| Watch this video about Spring Equinox from Glasgow Science Centre [The Spring Equinox](https://www.youtube.com/watch?v=kP9D9VZmazc&feature=youtu.be) | |