

Nature Activities—November

Finding out about the weather fits into lots of bits of the curriculum by itself, but also is a vital part of understanding nature. For primary or first schools, your local secondary school science department may be able to lend science resources such as weather monitoring equipment or data loggers for light levels, temperature etc —this could be a great way to make links with them.

Make a Weather Station—record what happens

A great case study of a school that had a weather station can be found at <https://www.geography.org.uk/Case-study-of-a-school-weather-station>. If you would like more information on how this links to the primary curriculum and where to purchase a good weather station (from around £100) look at information from the Royal Meteorological Society at <http://www.metlink.org/wp-content/uploads/2013/06/SchoolWxStn.pdf>

If you don't have a budget that covers buying a piece of equipment, you can make your own measuring station to monitor rainfall, temperature and wind. You can find instructions to make it at <https://www.metoffice.gov.uk/learning/weather-for-kids/weather-station>

Make your own sundial to measure time. You can find instructions at <https://www.wikihow.com/Make-a-Sundial>

You will need to know the directions of a compass for some weather monitoring. You can use a compass, or make your own at <https://www.wikihow.com/Make-a-Compass> (we have found that using a hair grip is very effective and avoids the sharp point when using a needle—but you may also need a slice of cork or similar to help it float).



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Recording the weather

Once you have a weather monitoring station set up, it will yield a lot of opportunities for recording and presenting the data.

You can set up a weather chart in your classroom. There are lots of resources linked to the weather recording available, such as at <http://www.sparklebox.co.uk/topic/world-around-us/weather-and-seasons/weather.html#.W-LLXtX7SUI>

You can make a really interesting scarf as a record of the year's weather, where each line has a different colour to represent the day's temperature. You can see a completed scarf at <https://rainbowjunkiecorner.wordpress.com/2017/01/09/temperature-scarf-is-now-finished/>

An alternative to the scarf idea and one which may be more practical for a classroom display is make a landscape chart with colours to represent different temperatures or weathers. Each day can be represented by a 5cm strip of paper, which is then attached to a wall for a full term to enable to see the changes in temperature visually. An example of this done over a longer period is found at <https://www.climate-lab-book.ac.uk/2018/warming-stripes/>

You can make your own UK or local area weather map. A template can be found at <http://www.crickweb.co.uk/ks1science.html#forecast>



Nature Activities—November

How does the weather work?

Deepen children's understanding of the weather, by looking at forecasting the weather and what causes weather.

There are lots of suggested science experiments and demonstrations relating to temperature, air pressure etc at <http://www.metlink.org/experimentsdemonstrations/>

A great demonstration on air pressure is the egg in a bottle trick, which can be found at <http://www.metlink.org/wp-content/uploads/2013/10/egg-bottle.pdf>.

Boil a kettle to make a cloud! There are some more structured activities around clouds and an activity at a more realistic temperature for cloud formation at <https://serc.carleton.edu/sp/mnstep/activities/25746.html>.

Cloud gazing is also a great activity—what pictures can you see in the sky?

Have a go at being a weather presenter by adding a weather report to the BBC as a weather watcher at <https://www.bbc.co.uk/weatherwatchers/>

Or take your students on a tour of the BBC studios at Newcastle, tours are available on Tuesdays and Wednesdays and more information and booking links can be found at http://www.bbc.co.uk/showsandtours/tours/childrens_newcastle



Literacy Activities—November

Weather Words

- Learn about common weather names used to describe the weather
- Use local terminology for the weather—do you all use the same words to describe things? Do your parents or grandparents use other words? There are some interesting local weather words at: <https://www.bbc.co.uk/news/uk-42918581>
- Create a list of local words for different types of weather
- Compare which words are used most in your area
- Develop the terminology by asking children to use describing words for the weather, using adjectives, similes, metaphors, alliteration etc
- Try using all those descriptions to make up your own new words to describe different kinds of weather
- Use these words to built a weather poem or make an acrostic of one type of weather
- Personify different weathers by turning them into characters.
- Develop a forecast by providing the photo of a weather presenter and ask the children to re-enact the presentation or write a script for the presenter to read



Maths Activities—November

Weather maths

Using the data you collect from your weather station, or pre-collected data, challenge students to work out some key facts, such as based on temperatures you could:

- Temperature data is a great way to look at negative and positive numbers—work out which are highest and lowest, temperature differences spanning zero etc
- Count the numbers for the temperatures
- Sort the temperatures from the lowest to highest from a week of temperature data
- Convert the numbers for the week to a bar chart
- Work out the mean, median and mode for the week
- How many days that week were sunny. What is this as a fraction?
- Use ICT to track the data

You can use the weather for lots of other aspects of understanding numbers and working with data, depending on the level of the students.

If you don't have your own data, you can download weather statistics—for example, for Newcastle, you could use <https://www.worldweatheronline.com/newcastle-upon-tyne-weather-history/tyne-and-wear/gb.aspx>



Art, Arts Award — November

Make a weather mobile (<https://www.education.com/activity/article/weather-mobile-kindergarten/>)

Make weather process art, where you make art through the process of the weather, using wind (by blowing paint), rain (using watercolours) or frost (using salt which will form crystals that look like ice crystals as the picture dries) (<https://www.pre-kpages.com/three-weather-art-activities/>)

Make pictures using the sun (evaporating water over the day, drawing around the puddle as it evaporates (<https://kidssteamlab.com/evaporation-art-puddles-preschool-stem-activity/>))

Make art using snow paint or snow clay (<https://www.kidsplayandcreate.com/pretend-fake-snow-recipes-for-kids-how-to-make-snow-paint-snow-clay-for-kids/>) - or in the snow if some becomes available!

Make rain puddle pictures (<http://elementaryartfun.blogspot.com/2014/03/winter-rain-watercolor-resist.html>)

Investigate artists who have portrayed the weather - Turner, Van Gogh, Georgia O'Keefe, Matisse (<https://www.tate.org.uk/art/student-resource/weather-exam-help>)



Crest Awards — November

Crest Awards (<https://www.crestawards.org/>) are run by the British Science Association and support science work and working scientifically. Star level is aimed at KS1; Superstar at KS2 and Discovery at KS3 and all have pre-made downloadable challenges which you can put together to achieve the awards. Beyond that, Bronze, Silver and Gold levels give more scope for individual projects. We are working to produce a Crest accredited challenge for when you visit Dippy at the Great North Museum: Hancock to make up one of these activities on your journey. The awards are cheap to do (£1 per child for Star and Superstar and £3 each for Discovery) and you can record the activities online to get the children's certificates and badges.

Investigating Weather challenges

Star (<https://www.crestawards.org/crest-star>)

- Useless Umbrella
- Muddy Mess

Superstar (<https://www.crestawards.org/crest-superstar>)

- Windy Ways



Things to look out for in November

- Frost is on the ground and trees
- Leaves on the ground
- Spiders webs can be seen, covered with dew
- Caddis fly larvae can be found in ponds, in their cases made from stones or bits of plant material
- Mosses of all kinds can be found in woods and hedgerows; at this time of year, their velvety evergreen tufts and cushions stand out against the bare wood
- Many plants produce beautiful seed heads, such as hogweed and teasel, which are valuable as food for birds, but also as stems in which insects can overwinter
- Many birds gather together in small flocks, especially finches and tits. What do they sound like?
- Skeins of geese arrive to spend the winter in Britain
- Grey squirrels get quite noisy with their harsh, rasping, barking vocalisations

