

Nature Activities—October

Investigate Autumn Leaves

- How many different colours of leaves can you find? Are the leaves from the same tree all the same colour?
- Are all the trees losing their leaves at the same time?
- Nature Detectives have a fantastic information sheet about why leaves change colour: <https://www.woodlandtrust.org.uk/naturedetectives/activities/2017/09/why-leaves-change-colour-factsheet/> and have an autumn leaf spotter sheet: <https://www.woodlandtrust.org.uk/naturedetectives/activities/2017/10/autumn-leaf-identification/>
- Why have all leaves not evolved to turn to the same colour in autumn? Get into the debate at: <https://www.theguardian.com/environment/2015/nov/22/why-are-autumn-leaves-yellow-in-europe-red-in-north-america> and <https://extension.tennessee.edu/publications/Documents/SP529.pdf>
- What can you see in the tree branches when the leaves have fallen? Look out for things like birds' nests that you can't spot in summer.



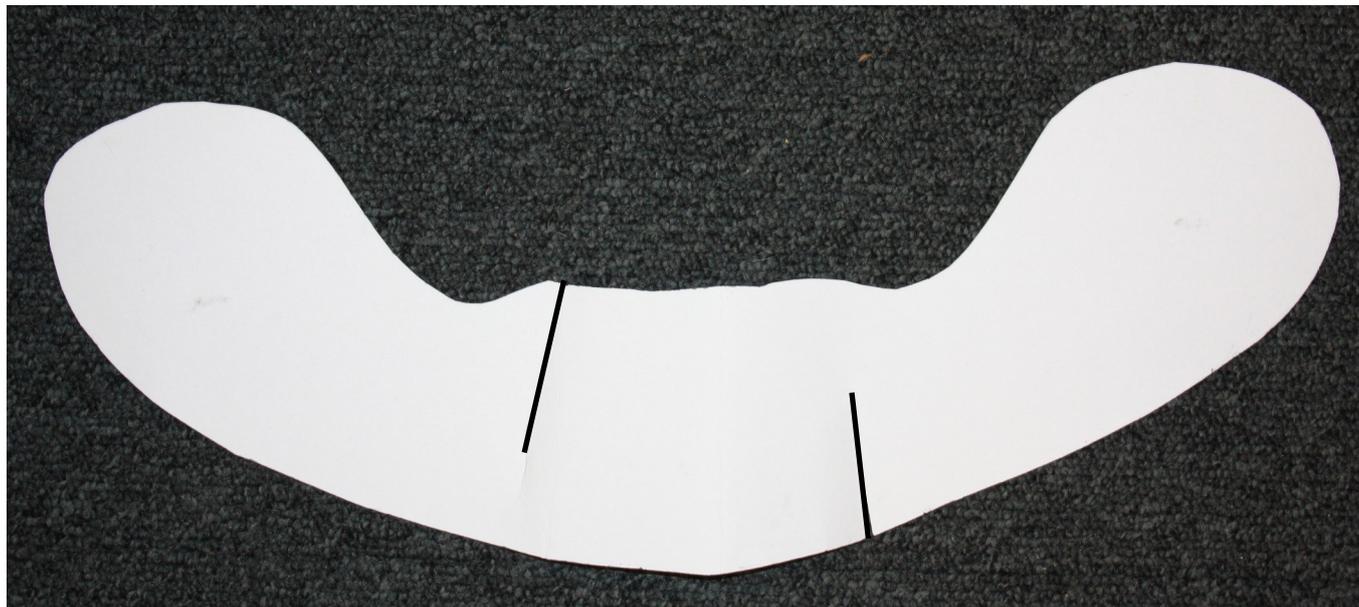
Nature Activities—October

Seed Dispersal

- research how different seeds are dispersed. The Field Studies Council have some great activities at https://www.field-studies-council.org/breathingplaces/food_for_us.htm (scroll down the page—it doesn't immediately look like you have reached the right place!)
- try simulating some of the ways in which that happens eg
 - fly sycamore seeds or paper aeroplanes to work like them (see overleaf)
 - make parachutes
 - use party poppers to do exploding seed dispersal
 - float a coconut
 - get your class to come up with their own ways of testing...
- 'The Tiny Seed' by Eric Carle is a great story of how a seed travels away from the plant where it started. Get the class to play the parts of different kinds of seed
- cut up fruit to find the seeds - then plant some. You could eat the fruit to check how delicious they are for the animals who will then spread the seeds
- bring in different kinds of fruit/seed head and work out how they are adapted and why (eg look at colours, habitat etc)



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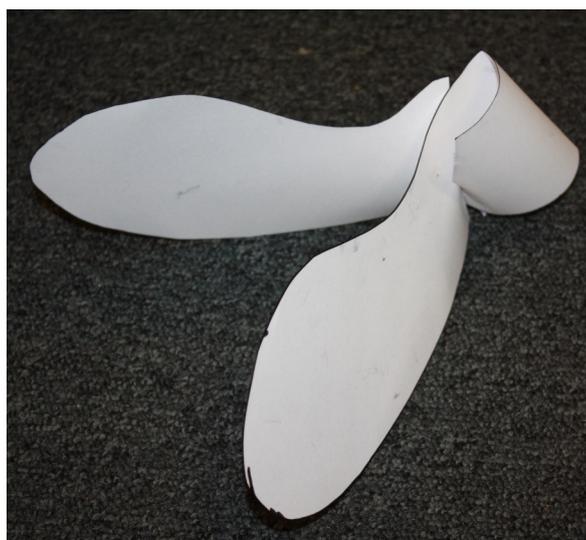


Make a sycamore seed flier

Cut out the shape of the seed and put two slits in the central area, as above
Fold the wings in and fit the two slots together

You could try

- adding different amounts of weight to the folded area to test how it flies
- seeing how well it launches in different ways
- dropping it from different heights



Nature Activities—October

Hibernation

Lots of animals are getting ready to hibernate. Investigate what kind of nest they should make by trying out different insulators

- What do you wear if you want to stay warm? Try out different combinations of clothes—include thick things, puffy things and layers as well as different fabrics
- Make nests from different natural materials and see which one can keep an icecube frozen for longest. Remember, some animals use snow to make a den (though that may be hard to source in October!)
- If you have access to a thermocouple or an oven thermometer, heat up some microwave hotties, hand warmers, baking beans etc. Put them into your nests and measure how the temperature changes over time.
- Which animals hibernate? Think first about local animals, then look worldwide. Why do some animals hibernate and others don't? What are the benefits and the risks? Take it up a level with <http://rspb.royalsocietypublishing.org/content/early/2011/03/22/rspb.2011.0190>
- What else can animals do to protect themselves when the weather starts to get cold? Think about changing coats, migration, putting on blubber, huddling together, adults dying leaving eggs or larvae behind etc



Literacy Activities—October

Writing outside

- write using different materials: make marks in sand; write with water on a yard; use twigs to make words (you could investigate runes as you do this)



- find out about tracking signs (eg <https://members.scouts.org.uk/documents/OurSportingAdventure/S%20-%20Tracking%20Trail%20-%20factsheet.pdf>) and lay a trail for someone else in the class to follow.
- Go outside and use your senses. What does autumn feel/smell/look/sound/taste like? Use your sensory experiences to write descriptively—it's a great way to bring in adjectives and adverbs.
- Read some autumn poetry <https://www.panmacmillan.com/blogs/literary/poems-poetry-about-for-autumn-keats-frost-classic> and write your own. Why not try reading the poems outside in a spot related to the subject then write your own poem outside too. Michael Rosen's website and blog have some inspirational ideas around children, poetry and language more generally: <https://www.michaelrosen.co.uk/>



Maths Activities—October

Tree maths

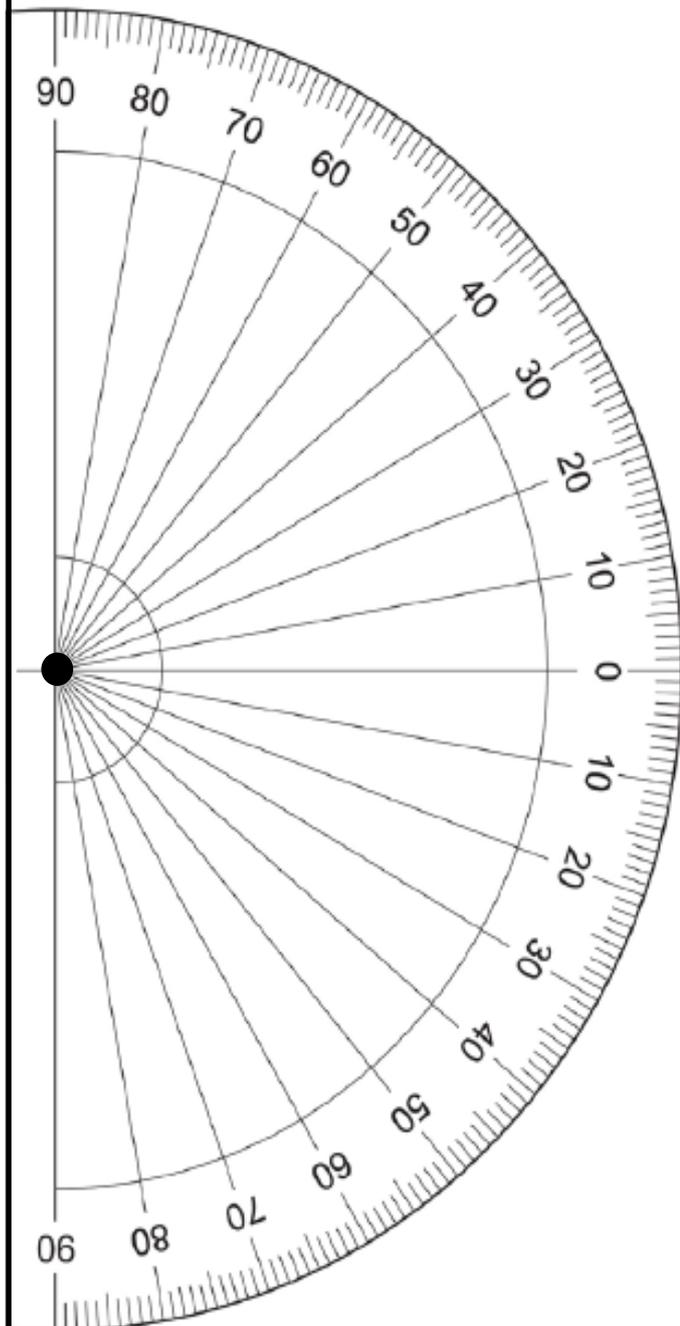
As the leaves fall from the trees, you can use the bare branches to do lots of types of maths....

- measuring—find trees that are big and small, measure round the trunks. you can use this as a way of working out the age of the tree: <http://www.tree-guide.com/tree-age-calculator>; <https://www.opalexplorenature.org/sites/default/files/7/file/TreeAge2.pdf>
- measure the height of a tree. Try different methods: measure directly for small trees; estimate; use a clinometer (see overleaf) and trigonometry
- sort leaves into groups and order into size. How did you decide what groups to use?
- measure leaves from different trees. Is there more difference in size between leaves from the same tree or leaves from different trees?
- angles - when the leaves are gone, find the angles in the branches—acute, obtuse, reflex, right angle etc
- if you can find a tree stump, count the tree rings to see how old the tree was when it was cut down. You can find out more about dendrochronology at https://serc.carleton.edu/trex/students/labs/part_1xxxx.html





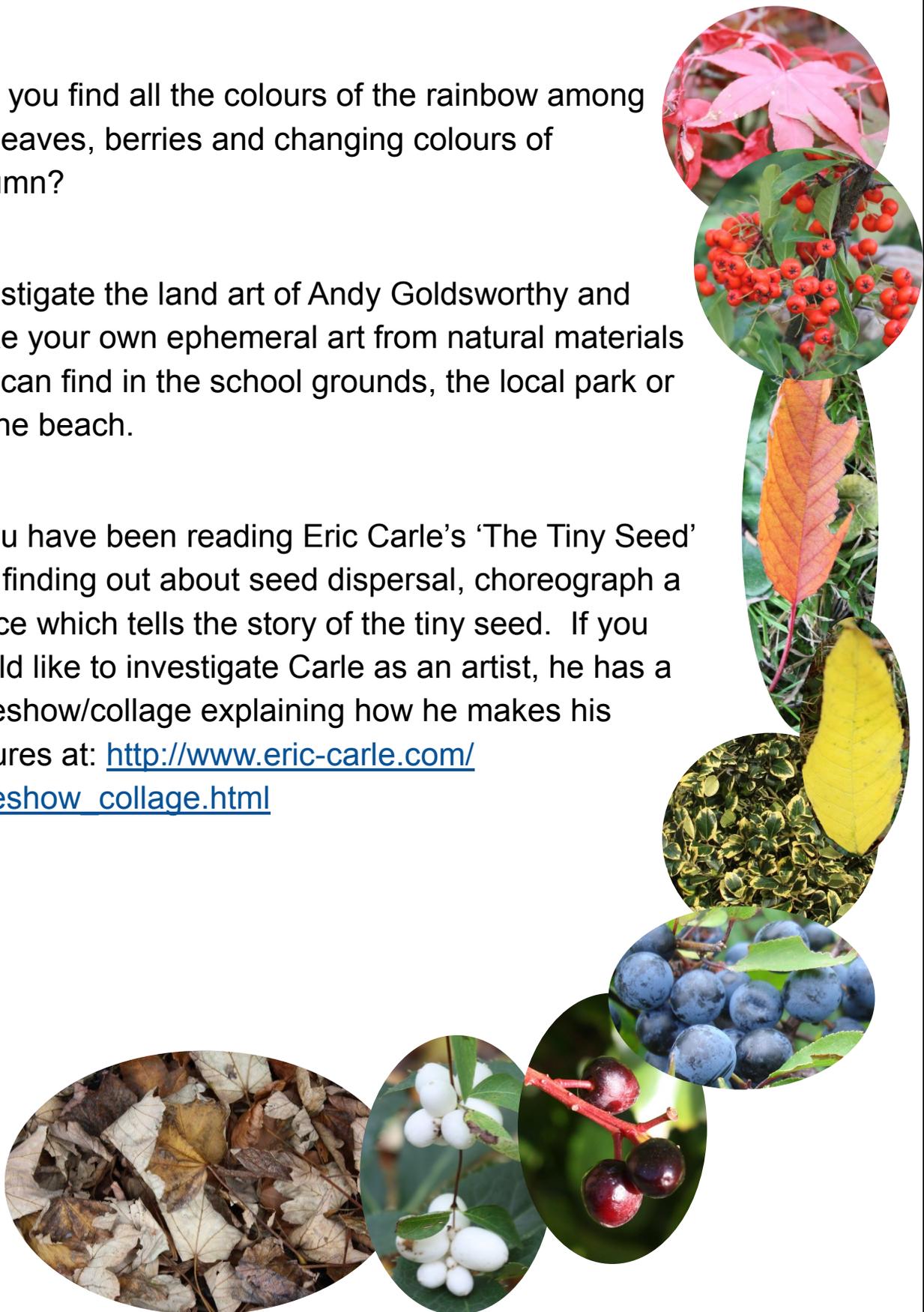
Clinometer Template



- Cut out the template
- Roll up the rectangle to form a 'telescope' viewer and tape it into place
- Make a hole through the dot at the centre of the protractor and thread string through. Tape it down at the back and weight the other end with blu tack or a tied on button

Art, Artsmark, Arts Award —October

- Can you find all the colours of the rainbow among the leaves, berries and changing colours of autumn?
- Investigate the land art of Andy Goldsworthy and make your own ephemeral art from natural materials you can find in the school grounds, the local park or on the beach.
- If you have been reading Eric Carle's 'The Tiny Seed' and finding out about seed dispersal, choreograph a dance which tells the story of the tiny seed. If you would like to investigate Carle as an artist, he has a slideshow/collage explaining how he makes his pictures at: http://www.eric-carle.com/slideshow_collage.html



Crest Awards —October

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 Nature Challenges

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

- Rainbow Collectors
- Scrap Yard Scraps

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

- Camouflaged Creatures



Things to look out for in October

IF YOU ARE BUILDING A BONFIRE IN TIME FOR BONFIRE NIGHT, REMEMBER TO CHECK IT FOR HEDGEHOGS BEFORE YOU LIGHT IT!

- nights are drawing in!
- leaves changing colour and falling from the trees
- mushrooms in the grass
- baby grey seals being born on the coast (the best place to see them in north east England is the Farne Islands)
- arrival of migrating geese
- the first frosts of the winter
- heavy dews in the morning
- spiders webs shining with dew

