Field Studies Council

National Fieldwork Week **6 to 10 June 2022**

KS2 Geography

Investigating Change in the School Grounds or Local Park

Teacher Resource Pack

This pack will help you to plan fieldwork in your school grounds or local park to investigate change over time

- Map how people or wildlife use the environment and how this changes over time
- Produce a sensory map for an outdoor space
- Measure changes in the weather over time
- Make an anemometer for measuring wind speed

The Field Studies Council

We are a UK environmental education charity and leading provider of outdoor learning. More than 30,000 primary-aged children visit one of our 20 learning locations each year.

Our residential and day trips for primary schools are tailored to the curriculum and designed to suit your requirements. To find out more, visit: https://www.field-studies-council.org/primary-school-trips/

For online and in-person Group Leader and Teacher Training courses visit: https://www.field-studies-council.org/group-leader-and-teacher-training/

To find out about our wide range of wildlife identification guides visit: https://www.field-studies-council.org/shop/

Field Studies Council

National Fieldwork Week 6 to 10 June 2022

KS2 Geography
Investigating Change in the School Grounds/Local Park

Curriculum Links

England National Curriculum

KS2 Geography: use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.

Wales National Curriculum

Geography: Pupils develop their geographical skills, knowledge and understanding through learning about places, environments and issues. Carry out fieldwork to observe and investigate real places and processes.

Scotland Curriculum for Excellence

Social studies: By using a range of instruments, I can measure and record the weather and can discuss how weather affects my life (SOC 1-12a).
I can create and use maps of the area. (SOC 1-14a).

Aims and Objectives

Learners will develop their understanding of human and physical features in a local area and how these change over time. Learners will use sketch maps, journals and other field work to observe, record and present these features. They will identify geographical difference and similarities and enhance their location and place knowledge. Some learners may also identify environmental or social issues of concern or explain how processes or people have interacted and shaped a place.

Equipment and Resources

Clipboards
Printed A4 maps of school grounds/local park
Printed worksheets
Tablets/cameras
Watch
Sensory objects e.g. pine cone, fabric, herb plants
Anemometer: hole punch, yoghurt pots, straws, pushpins, pencils, stopwatch

Health and safety checklist

- ✓ Risk assessment to identify hazards and manage them e.g. busy crossings, uneven ground, dog faeces, broken glass, aggressive dogs, low-hanging or fallen branches
- ✓ Identify group leader and responsibilities
- ✓ Staff, pupils and volunteers are appropriately trained and briefed
- ✓ All paperwork completed prior to and after visit

Field Studies Council

National Fieldwork Week 6 to 10 June 2022

Investigating Change in the School Grounds/Local Park
Teacher Guidance

Investigating how people or wildlife use a space over time

Children will produce a map of the main features in the playground or park and then observe features to see who is using them. Use the worksheet as a pre-fieldwork activity to familiarise children with the task.

You will need to print base maps for the space e.g. Google Maps or Digimap for Schools. In groups, children should walk around the space and identify the most important features for a particular group of users e.g. benches and playground equipment for people, trees and bushes for birds, deadwood and leaf litter for invertebrates.

Children should decide on appropriate symbols to represent these features and mark them on the map. They should try to mark them in the correct locations, using landmarks on the map, e.g. the shape of adjacent buildings, or a compass, to help them. Label features using numbers. Produce a key or legend for the symbols used.

Decide how often to visit the space for observations. Try to visit at least three times and choose the times of day or week when children are most likely to obtain data. You could position group members to record at different locations, then pool the data. Record date, time, weather and other useful observations on each visit.

Children should record the number of people or animals using the feature, during a specified time period e.g. tally of birds that fly into a particular tree, or number of minutes a bench is occupied for, over a 15-minute-period, of the number of minibeasts found after 10 minutes hand-sorting through the leaf litter in a particular area. Children should use the same locations and recording times on each visit.

Post-fieldwork Enquiry

- Children to decide how to present or analyse the data e.g. table or graph showing different features observed and number of visitors to each feature
- Discuss what you have found out from your data. What could be possible reasons for any differences you have seen in the data? Were there more users at a certain time of day or when it was sunny, for example?
- What else could have also influenced your data collection? Are there any ways you could improve the design of the methods you used? How might you be able to collect more data?

Mapping an outdoor space *Worksheet*

Field Studies Council

Investigating how people or wildlife use a space over time

We produced a map of the play equipment, benches and trees, in Totnes Primary School playground on 13 April 2022, (shown over the page). We numbered features so that we could identify them (e.g. tree 1, tree 2, tree 3)

The tables below show the number of visitors to these features, at different times on 14 April 2022. The weather was dry and cloudy for most of the day, apart from a heavy rain shower from 1:00 – 2:00 pm.

Play apparatus number	11:00 – 11:15 am	12:30 – 12:45 pm	2:15 – 2:30 pm
1	2	8	0
2	3	7	0
3	14	9	4

Table 1. Number of visitors to play equipment

Bench number	11:00 – 11:15 am	12:30 – 12:45 pm	2:15 – 2:30 pm
1	6	0	0
2	6	2	0
3	5	3	0

Table 2. Number of visitors to picnic benches

Tree number	11:00 – 11:15 am	12:30 – 12:45 pm	2:15 – 2:30 pm
1	5	0	6
2	4	0	6
3	0	0	0

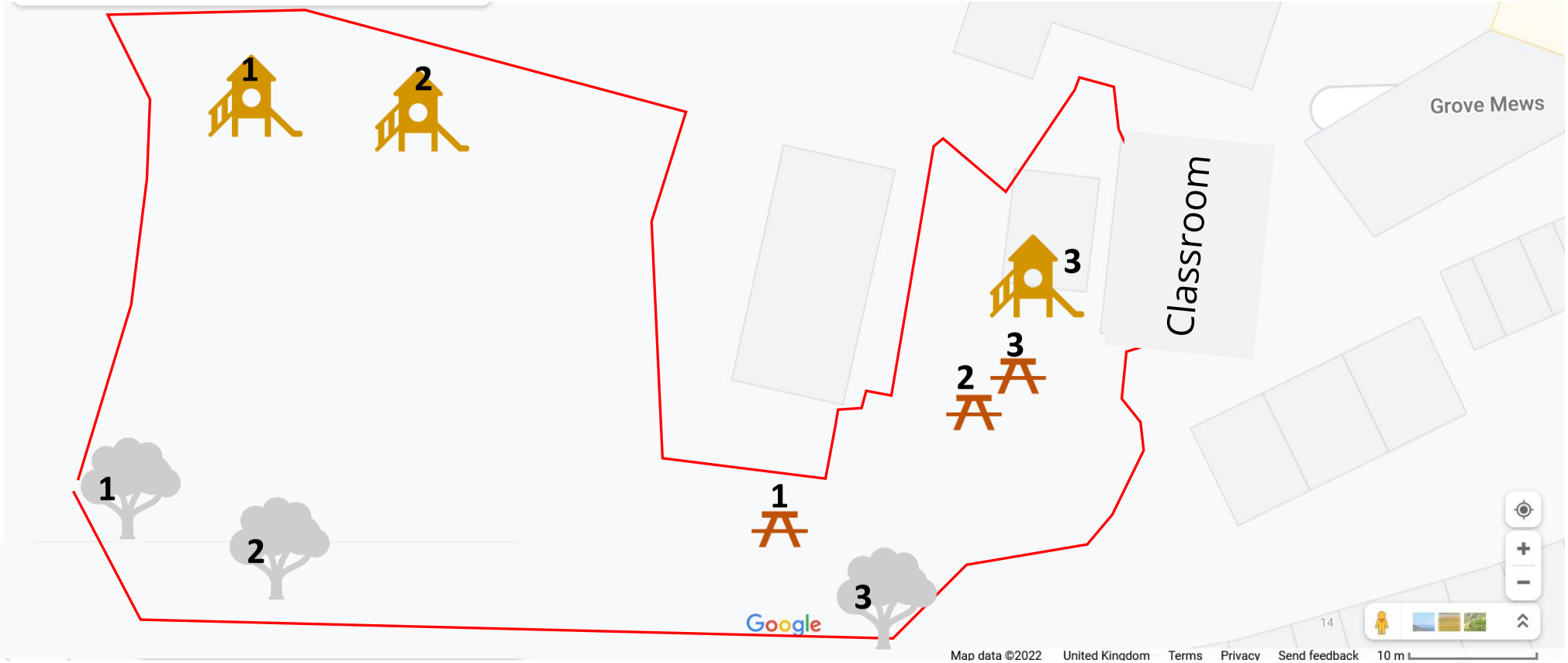
Table 3. Number of birds that flew into trees

Questions

- By looking at the map, the data and considering the weather, try to explain why:
  - The number of visitors to play apparatus were highest at lunchtime
  - The number of visitors to play apparatus was highest for play apparatus 3 at morning playtime, compared to play apparatus 1 and 2
  - The number of birds in trees was highest in tree 1 and 2, compared to 3

Map of playground features, Totnes Primary School, Totnes
Worksheet

Field Studies Council



Legend

Tree

Play equipment

Picnic bench

Field Studies Council

National Fieldwork Week 6 to 10 June 2022

Investigating Change in the School Grounds/Local Park
Teacher Guidance

Produce a sensory map for an outdoor space

Warm-up sensory activity

Gather a collection of sensory-rich objects with a variety of textures, smells and sounds e.g. a loofah, bells, feathers, silk handkerchief, blueberries, fresh herbs. Children explore each object in turn and pass to the next person.

Encourage children to take time to experience the object and to close their eyes to heighten the sensation of touch or smell. Provide magnifying glasses for closer observation. Five objects per child is sufficient and prevents the experience becoming overwhelming. Afterwards, children share their experiences.

Mapping activity

Use the worksheet as a pre-fieldwork activity to familiarise children with the task. You will need to print base maps for the space e.g. Google Maps, Digimap for Schools. Children explore the space using each sense in turn. Children may wish to be blind-folded for some sense explorations, with another child acting as their guide.

Children record their experiences on the map. Try the mapping activity at different times of the week or the day and compare the results.

For more information and ideas, visit https://www.sensorytrust.org.uk/

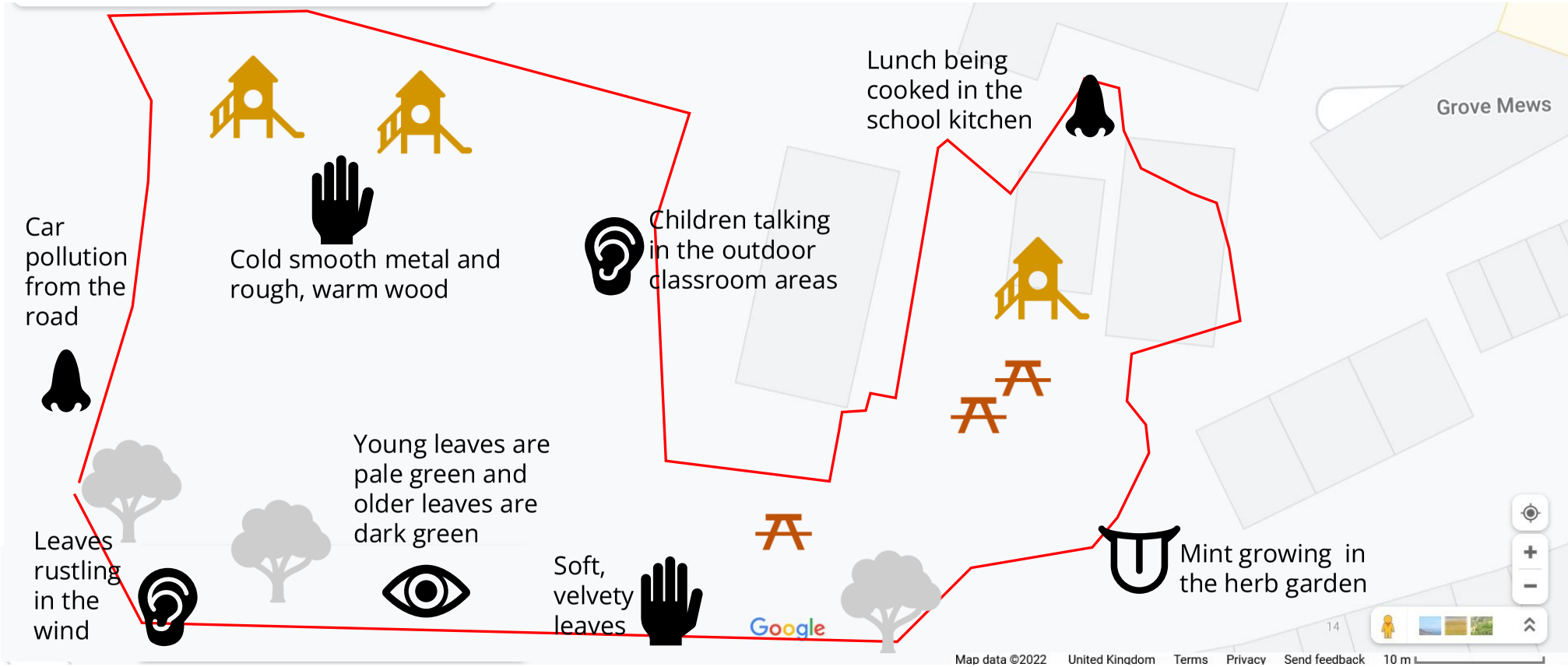
Post-fieldwork Enquiry

What were the most pleasant and least pleasant sensory experiences?
How did the sensory experiences compare, at the different times of day/week?
How could you improve the sensory qualities of this space?

Sensory Map of the playground, Totnes Primary School, Totnes *Worksheet*

Field Studies Council

A group of Year 5 children produce a sensory map on 5 April 2022



Legend

Sounds Tastes Sights Smells Textures

Questions

- What impression do you get of this space, from the sensory experiences described?
- Do you think there are any sensory experiences that these children may have missed?

Field Studies Council

National Fieldwork Week 6 to 10 June 2022

Investigating Change in the School Grounds/Local Park
Teacher Guidance

Keeping a weather journal

Children use the worksheet overleaf to make observations and measurements about the weather, which can form the basis of an investigation. Children should record the weather once a day, at the same time each day and in the same location for several days e.g. the school week.

Post-Fieldwork Enquiry

- Decide how to present or analyse the data, e.g. bar chart showing rainfall each day
- Do you see any patterns in weather in the mornings compared to the afternoon?
- Can you see any patterns between 'wind conditions'/'direction' and the 'precipitation'/ 'temperature' the following day? *Windy weather usually indicates there will be a change in the weather, as wind carries moisture and hot or cold air from one area to another. In the UK, winds from the South-west bring rain and winds from the North-East bring colder weather.*
- Do you get the same result if you use two different tree species for your wind condition recording? Try to explain any differences
- Do you get the same result if you measure air temperature just above the ground or in the sun? Why do you think these are less accurate locations for measuring temperature than standing in the shade with the thermometer at 1 metre height?

Make your own anemometer

Learn how to make a simple anemometer for measuring windspeed (you will need 2 straws, 1 pencil, 5 paper cups or yoghurt pots, a hole punch and a pushpin) https://www.youtube.com/watch?v=Af0LB3abBsk

To measure the wind speed, count the number of spins the anemometer makes in one minute with the help of a stopwatch. Compare the windspeed over time, in the same location. If you make more than one anemometer, you could compare the windspeed at different locations in the playground (as recordings need to be simultaneous).

Post-Fieldwork Enquiry

What did the wind speeds you recorded in different locations tell you about how sheltered or exposed those locations were?

Monitoring changes in the weather
Worksheet

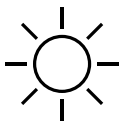
Field Studies Council

Weather Journal

Your name(s): _____ Date: _____Time: _____

Record the weather by ticking or circling the correct categories below

Precipitation



Sunny

Partly sunny

Cloudy

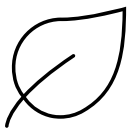
Light rain

Heavy rain

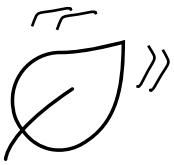
Stormy/icy

Wind conditions

Use the same tree for your wind observations each time



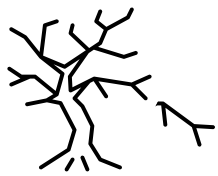
Calm



Breezy (leaves/twigs rustle)

Windy (small branches sway)

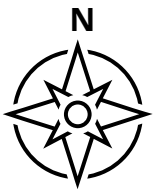
Very windy (large branches sway)

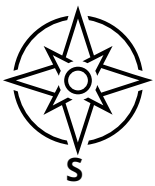


Gale (broken branches and uprooted trees)

Wind direction

Make a streamer with a stick, long strips of paper or ribbon. Hold it in the wind and use a compass to measure the direction that the wind is blowing from.





Air temperature

Stand in the shade with thermometer held 1 metre above the ground. Record after 2 minutes.

Temperature (^{0}C): _____