THE NATIONAL CURRICULUM OUTDOORS

YEAR 6

A complete scheme of work



Deborah Lambert,
Michelle Roberts and Sue Waite

BLOOMSBURY

BLOOMSBURY EDUCATION

Bloomsbury Publishing Plc

50 Bedford Square, London, WC1B 3DP, UK

BLOOMSBURY, BLOOMSBURY EDUCATION and the Diana logo are trademarks of Bloomsbury Publishing Plc

First published in Great Britain, 2020 by Bloomsbury Publishing Plc

Text copyright © Deobrah Lambert, Michelle Roberts and Sue Waite, 2020

Photographs © Deobrah Lambert, Michelle Roberts and Sue Waite; Shutterstock

Deborah Lambert, Michelle Roberts and Sue Waite have asserted their rights under the Copyright, Designs and Patents Act, 1988, to be identified as Authors of this work

Bloomsbury Publishing Plc does not have any control over, or responsibility for, any third-party websites referred to or in this book. All internet addresses given in this book were correct at the time of going to press. The author and publisher regret any inconvenience caused if addresses have changed or sites have ceased to exist, but can accept no responsibility for any such changes

All rights reserved. This book may be photocopied, for use in the educational establishment for which it was purchased, but may not be reproduced in any other form or by any other means – graphic, electronic, or mechanical, including photocopying, recording, taping or information storage or retrieval systems – without prior permission in writing of the publishers

A catalogue record for this book is available from the British Library

ISBN: PB: 978-1-4729-7624-6; ePDF 978-1-4729-8439-5

2 4 6 8 10 9 7 5 3 1

Printed and bound in the UK by Ashford Colour Press



All papers used by Bloomsbury Publishing Plc are natural, recyclable products from wood grown in well managed forests. The manufacturing processes conform to the environmental regulations of the country of origin

To find out more about our authors and books visit www.bloomsbury.com and sign up for our newsletters

Quotations from National Curriculum documents used in this publication are approved under an Open Government Licence: www.nationalarchives.gov.uk/doc/open-government-licence/version/3

Dedication

We dedicate this book to all teachers who are willing to take their teaching outside the classroom and offer exciting learning opportunities, foster positive health and wellbeing outcomes an connect children with their natural environment. They are our hope for an education for excellence and sustainability.

We also dedicate it to Deborah's mum Jennifer Lilley for her support and guidance, her brother Jason Lilley for his shared passion for Art and her partner, Andy Rimmer for his ideas and support throughout the writing process, to Michelle's partner Andy Mitchell for his continued support and excellent photographs and to her nephew and niece Robbie and Alice who have inspired many of the KS2 ideas alongside Coads Green Primary School and to Sue's family, who are fellow committed lovers of nature and learning.

Contents

Acknowledgements 4

Foreword 4

Chapter 1

Why teach outdoors in Year 6?

Embedding teaching outdoors into your practice 5

Benefits 5

Challenges 6

How to use this book 6

Is anything missing? 7

Conclusion 7

Chapter 2

Assessment outdoors

The adult role 8

Supporting special educational needs and disability 9

Gathering the evidence 9

Integrated and progressive assessment 9

Chapter 3

Health and safety outdoors

The law 10

Assessing risks and benefits 10

Some risk assessment considerations 10

Fire-lighting 11

Using tools 14

Accepting challenge and staying safe 15

Progressions

English: Year 6 16

Maths: Year 6 30

Science: Year 6 44

Geography: Year 6 58

History: Year 6 72

Art and Design: Year 6 86

Design and Technology: Year 6 100

Languages (French): Year 6 114

Music: KS2 128

Religious Education: Year 6 142

Bibliography 156

French worksheet 159

Photos and further resources

Illustrative photos and further resources are available online at www.bloomsbury.com/NC-Outdoors.



KEY STAGE 2 | Year 6

Geography

Based on the Key Stage 2 geography objectives identified in the 2014 National Curriculum for England, in this unit children revise and extend orienteering and fieldwork skills by reading, following and creating maps and trails to collect and process information, working together to complete challenges. The unit models the use of orienteering to collect information, which is then transformed or interpreted in some way, with examples given for topographical features, English and maths. However, the methodology can be applied to any curriculum area. British Orienteering, the national governing body for the sport of orienteering in the UK, provides support for the unit in the form of the free resource 'Tri-O: Orienteering made easy (a complete introductory orienteering activity package for schools)', available to download from www.britishorienteering.org.uk.

To support inclusive practice or to extend learning, the space, task, equipment and people (STEP) approach can be adopted throughout this unit. By changing the space, task, equipment or people, the activity can be made more challenging or easier to understand, enabling all pupils to take part in the activity, as explained in the assessment chapter in this book.

The children will be expected to work as a whole class directed by the teacher or in small groups or pairs, with support from adults or independently. The role of the adult is to lead the sessions safely and model the activities, encouraging independence by giving the children time to come up with their own ideas, whilst providing positive support where appropriate.

You may wish to record the activities using a camera.

Natural connections

- Knowledge of human and physical geographical features
- Science links with classification of living things based on specific characteristics
- Interpretation of terrain.

Health and wellbeing

- Increasing confidence through improving navigation skills
- Physical activity
- Applying skills and tactics
- Teamwork
- Having a responsible attitude to safety
- Being trusted to be 'out of sight'
- Describing and evaluating their own and others' performance
- Decision-making under pressure.

Word bank

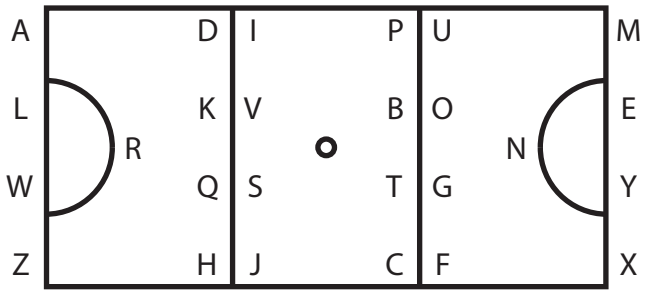
Maps

- physical and human geographical features
- orienteering
- symbols
- key
- control point
- control markers
- map orientation
- route map
- setting a map
- topographical features
- names and locations of mountains/rivers from around the world

Position, direction

- paces
- compass bearing
- degrees
- eight-point compass

The activities in this unit involve marking letters on a playground using chalk, like this. For further information, see www.bloomsbury.com/NC-Outdoors.



Summary overview

Progression	Curriculum content	Learning experiences/activities
Lesson 1	Use fieldwork to observe human features in the local area.	The children are introduced to a team-building game. Using control points, they collect letters of words from the Year 5 and 6 word list (English National Curriculum). They may also create their own map for others, choosing words from the word list and plotting the route using numbers.
Lesson 2	Use fieldwork to observe human features in the local area.	Using circled control points on maps of the playground, children collect letters to form words from the Year 5 and 6 word list (English National Curriculum), recording the letters on a control card, unscrambling the words and verifying their spelling and meaning using a dictionary.
Lesson 3	Use fieldwork to observe human features in the local area. Use the eight points of a compass, symbols and keys.	The children work in teams to lower a hoop to the ground. Linking to maths, they use 'Counting cone' orienteering, following routes and calculating answers, then use the cones for an introduction to eight-point compass work with 'Cardinal cones'.
Lesson 4	Use maps and atlases to locate countries and describe features. Use fieldwork to observe human and physical features in the local area. Use the eight points of a compass.	Children play the 'Matching pairs relay' game, matching meanings to symbols. They use a map of the outdoor area to find ten control points with jigsaw pieces for a mountain ranges map, using atlases to help them identify their locations, then choosing one mountain range for further investigation back in the classroom. They write route cards for the course using eight-point compass directions.
Lesson 5	Use the eight points of a compass, symbols and keys. 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.	Children reinforce their understanding of direction by playing the 'Robots' game, programming a partner to walk a route using eight-point compass directions. They are introduced to pacing, counting the average number of paces they take over a 100 m distance.
Lesson 6	Use maps and atlases to locate countries and describe features. Use fieldwork to observe features in the local area.	The children explore angles using tubular webbing. They use degrees (introduced as a compass bearing) to compete in a team relay challenge to collect the names of rivers of the world, finding their locations using an atlas.

PREPARATION

On playground markings, e.g. next to netball court lines, mark the letters of the alphabet in chalks, placing a cone at one corner to represent the start.

Make multiple copies of a map which shows the playground markings. On one copy, mark the position of all the letters to give a master map. On further copies, draw numbers to mark the position of certain letters and spell out a word, with the numbers in order of the letters in the word. Use words from the English National Curriculum Year 5 and 6 word list and make a separate map for each word. Mark the start position with a △ on each map.

Label each map 1, 2, 3, 4, 5, etc., making a note of the word corresponding to each map on an answer sheet.

Resources

- Playground labelled with letters of the alphabet and a cone to represent the starting point
- Master map showing all the letters and a list of answers
- Copies of each map for each word
- Enlarged copies of one word map, for the demonstration
- Pencils and clipboards

Previous learning

Use questioning to evaluate previous learning the children may have done using maps.

CONSIDER

Health & Safety

Assess and evaluate hazards and risks in your setting. See the health and safety chapter.

LESSON OBJECTIVES

We are learning to identify control points on a map to collect letters.

National Curriculum Content

- Use fieldwork to observe human features in the local area.
- Links to English (spelling words from the Year 5 and 6 word list).

ADULT ROLES

- Model the activity.
- Support with orientating the maps.

WARM UP IDEAS

Explain that for the next six weeks, the children will be using orienteering to collect and process information (not necessarily about geography, but sometimes English or maths), and working together to achieve teamwork challenges. They will develop their geographical knowledge by reading, following and creating maps and trails.

Introductory activity (whole class)

Tree-felling game

1. The children stand in a circle, each with their hands on their thighs.
2. Start the game off by pointing at one person.
3. That person raises both of their arms, calling out 'Whah!'.
4. Immediately, the people either side of the 'Whah' raise their nearest arm, calling out 'Hah!'.
5. 'Whah' then joins their hands above their head and then brings them downwards to point at someone else in the circle, who raises both of their arms, calling out 'Whah!'.
6. The people either side of the new 'Whah' raise their nearest arm, calling out 'Hah!' and so on.
7. The aim is to keep the 'Whah! Hah!' going for as long as possible. How fast can the group go?

MAIN ACTIVITIES

Control point letters

Observe how to orientate a map of the playground (whole class and pairs)

Using 'follow the leader', walk the class along the playground lines to explore the chalk-marked letters. Point out that some letters are on one side of a line and others are on the other side of a line. How do they think they will be used? They will collect letters to spell words, a fun way to learn spellings for the week.

Using the enlarged map number 1, point out the number of the map, the start position (marked on the map by the triangle and on the ground by the cone), and how the map matches the netball court markings on the ground. Point out the numbers in circles that show the order in which to collect the letters.

Model how to set the map (using the start position as a guide) and keep the map in line with the markings on the ground (orientating it) as you move around the playground.

Give each pair a copy of the enlarged map and a clipboard. Can they 'set their map' to match the lines on the ground?

Explain that this is called 'map orientation', where the map is orientated to features on the ground.

1. Point out the start cone (marked with a triangle on the map) and ask a volunteer pair to stand at that point.
2. Point out the numbered circles on the map, which, if followed in the correct order, will spell a word.
3. Ask the volunteer pair to move to the place indicated by the ①. What letter do they find there?
4. Repeat with ② and ③ and then the rest of the route. What word does it spell?

Challenge 1 (in pairs)

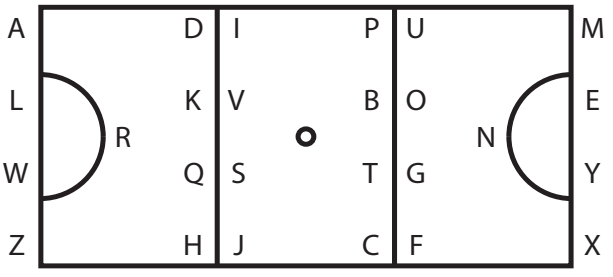
Use numbered control points to collect controls (letters spelling words)

The children's task is to follow the numbers to each control point to collect letters.

1. They find each control point on the map and record the control point letter by writing it down to spell the word, letter by letter.
2. When they have the word, they take the number of their map and their answer to an adult, who will tell them whether the spelling is correct or not.
3. If it is correct, they can choose another map to find another word.

Extension

Some children may be able to draw their own numbered trail on a map, identifying a different word (such as the name of a country, or another word from the word list), to give to another group to complete.



PLENARY

Encourage the children to explain what they have found out about finding control points on a map and any new words they have learned.

Leave the chalk marks on the ground for the children to practise with during playtimes.

EVALUATION/FOLLOW ON

- What went well and why?
- What didn't go as well as expected?
- What could be changed?
- Who stood out and why?

PREPARATION

As in Progression 1, mark the playground with letters and make a map showing all the letters.

This time, mark plain maps of the playground with circles to show the positions of letters which spell a word, but don't number the circles, so the children can find the letters in any order. Use words from the English Year 5 and 6 word list.

Make a table (control card) for the children to note down the letters.

Ensure that the start position is marked △.

Label each map 1, 2, 3, 4, 5, etc., making a note of the name of the word corresponding to each map on an answer sheet.

Resources

- Playground marked with letters
- Master map and answer list
- Enlarged copies of one word map
- Copies of the maps for each word
- Control cards
- Whiteboards and whiteboard pens

Previous learning

This extends previous learning the children may have done with maps.

CONSIDER

Health & Safety

Assess and evaluate hazards and risks in your setting. See the health and safety chapter.

LESSON OBJECTIVES

We are learning to identify control points on a map to collect letters making words.

National Curriculum Content

- Use fieldwork to observe human features in the local area.
- Links to English (use dictionaries to check the spelling and meaning of words).

ADULT ROLES

- Model the activity and verify the answers.
- Support with orientating the maps.

WARM UP IDEAS

Explain that children will be using the playground markings to find letters of words, as in the last progression, but with a twist.

Choosing a leader, the class moves along the playground markings lines in different ways, revising the chalk-marked letters.

Introductory activity (class divided into four)

Birthday line up

For a more physical warm up, use the lines for this group problem-solving activity.

1. Ask each group to stand on a line, all facing the same way.
2. Without stepping off the line, the children in each group need to change places to create an order.
3. Give an example by asking the groups to line up by the day of their date of birth, i.e. 1st will go at one end, 30th or 31st at the other end.
4. Other examples could include lining up by their month of birth or the number of siblings they have. They need to communicate to find out the order they need to line up in.
5. Did they come up with a plan of action? Did they all know what to do? Was their plan effective?

MAIN ACTIVITIES

Words from a route

Observe how to orientate a map of the playground (whole class)

Show the enlarged copy of map 1. What do the children notice? That the positions (control points) are represented by circles on the map but are not numbered. What difference will this make to collecting the letters, i.e. that they can be visited in any order?

Revise how to set the map and move around the playground, keeping it orientated to the markings (indicated by the start position) and addressing any difficulties experienced in Progression 1.

Challenge 1 (in pairs)

Use circled control points to collect controls (letters)

1. Show how the control card has a row for each map number, columns to collect the letters and a space for the answer at the end of the row.
2. The children's task will be to find each control point on the map and collect the control point letters, writing them on a control card.
3. They must work out which word it is by unscrambling the letters. They can use their whiteboards to unscramble the letters.
4. When they have the word, they take the control card to an adult, who tells them whether the spelling is correct or not and listens to their explanation of its meaning.
5. If they are correct, they can choose another map to find another word.
6. If not, they must repeat that map and look again at the dictionary to check where they went wrong.

Adults may support those finding it difficult by providing the first letter.

Challenge 2 (in pairs)

Create their own map

Children draw their own circles map, spelling a word to give to another pair to complete.

PLENARY

Encourage the children to explain what they have found out about finding control points on a map and any new words that they have found. What were the challenges and how were these overcome?

Leave the chalk marks on the ground for the children to practise with during playtimes.

EVALUATION/FOLLOW ON

- What went well and why?
- What didn't go as well as expected?
- What could be changed?
- Who stood out and why?

Control card example

Map no.	Letter	Letter	Letter	Letter	Letter	Letter	Letter	Letter	Letter	Answer
1										
2										
3										
4	T	E	I	D	N	Y	T	I		IDENTITY
5										
6										

PREPARATION

Mark a number value on each cone, adapting the numbering to suit the ability of the class, e.g. use numbers from the range 0–20 or 0–50.

Set out the cones in rows by colour, and draw and then make copies of a map that shows the position of the cones. Mark one copy with the position of each number. Mark the other maps with six different routes between some of the cones, then make multiple copies of each route map.

Make 'cardinal cones' course cards as per the examples on page 65.

Resources

- Hoops
- 12 numbered cones of four different colours (three cones per colour)
- Master map
- Copies of each route map
- Enlarged copies of one route map
- 'Cardinal cones' course cards
- Pens and whiteboards or paper

CONSIDER

Health & Safety

Assess and evaluate hazards and risks in your setting. See the health and safety chapter.

LESSON OBJECTIVES

We are practising orientating a map using cone orienteering (using an eight-point compass).

National Curriculum Content

- Use fieldwork to observe human features in the local area.
- Use the eight points of a compass, symbols and keys.

ADULT ROLES

- Support the children to maintain the orientation of their maps as they follow a route.

WARM UP IDEAS

Explain that this lesson will be about orientating maps, doing calculations and using eight-point compass directions as a third challenge. The children will need to work together and communicate in order to achieve the task.

Introductory activity (groups of six)

Helium hoops

1. Explain that this is an exercise to show that anything can be achieved with a little teamwork!
2. Each group stands in a circle facing inwards. Children hold the index finger of each hand out in front of them.
3. Place the hoop on top of their outstretched fingers so that it is balanced along the top of everyone's fingers.
4. The aim is to lower the hoop to the ground while it remains balanced on the children's fingers, without touching it in any other way.
5. If at any point someone loses contact with the hoop, the task is restarted.

This activity highlights that, although sometimes difficult, most objectives can be achieved if we work together and persevere.

MAIN ACTIVITIES

Cone orienteering

Orientate a map and work out positions (whole class)

Give each pair a copy of the enlarged map, pointing out the start cone (marked with a triangle on the map) and how the colours on the map match the cones on the ground. Can they set their map to match the cones on the ground? Use a volunteer pair to demonstrate how to follow the course.

Challenge 1 (in pairs)

Identify a route on a map

1. Give each pair one of the prepared maps, pointing out that they are numbered (1–6).
2. Ask them to stand at their start position and to discuss where they will be going next.
3. Orientating their map, they navigate the course marked on their map.

Challenge 2 (in pairs)

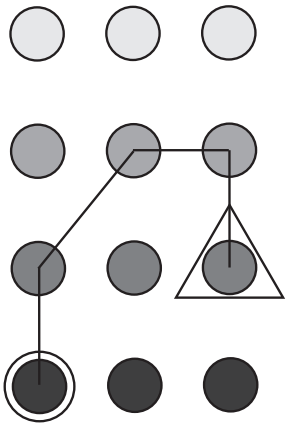
Collect and process information using cone orienteering

1. The children repeat the exercise, but this time they add up the numbers on the cones as they go, e.g. 3 + 5 + 16 + 2 + 20.
2. The children bring their answer to an adult. If the answer is correct, they can choose another map. If not, they must repeat the activity.

Challenge 3 (in pairs)

Use the cardinal points of the compass (eight-point compass)

1. Using the same cones, mark a 'north' chalk mark to one side of the course.
2. Revise the eight-point compass with the class, using 'north' as a guide.
3. Show the 'Cardinal cone' route cards (see below) and point out the start position marked on each card.
4. Model how to stand at the start position, then move from one cone to the next, following the directions indicated on the card.
5. Repeat the activity, this time collecting the numbers and writing the total in the last box.
6. Hand out the route cards for the children to complete.



PLENARY

Encourage the children to explain what they have been doing in the session and state what they have found out about orientating a map.

EVALUATION/FOLLOW ON

- What went well and why?
- What didn't go as well as expected?
- What could be changed?
- Who stood out and why?

Cardinal cones course 1: start at SW corner

Start	E →		NE →		W →		SW →		N →		N →	Total

Cardinal cones course 1: a completed example

Start	E →	16	NE →	9	W →	2	SW →	22	N →	10	N →	59

PREPARATION

Draw a map of the learning area with some key features marked, e.g. trees or buildings. Make a separate map key. Mark circled numbers at various points on the map - these will be 'control points'.

Print copies of a map showing key mountain ranges in the world. Cut up these copies at the same time to make identical jigsaws. You'll need the same number of jigsaw pieces as control points.

Place numbered containers at the corresponding control points, with the same pieces of each jigsaw in each different container.

Make pairs of cards, one showing a symbol from the map key and one showing the corresponding word, e.g. a tree symbol and the word 'tree'. Copy enough sets for one per group of four.

Resources

- Maps of the learning area with control points marked
- Map keys
- Map symbols cards
- Identical jigsaw pieces in numbered containers at each control point
- Atlases

Previous learning

This activity assumes prior experience of using a map to explore the setting.

CONSIDER

Health & Safety

Assess and evaluate hazards and risks in your setting. See the health and safety chapter.

LESSON OBJECTIVES

We are learning to follow a cross-country trail marked on a map to collect jigsaw pieces of mountain ranges of the world.

National Curriculum Content

- Use maps and atlases to locate countries and describe features.
- Use fieldwork to observe human and physical features in the local area.
- Use the eight points of a compass.

ADULT ROLES

- Model the activities.
- Reinforce and clarify the use of keys and symbols.

WARM UP IDEAS

Today the children will be finding control points marked on a map of the learning area.

Revise the features they might expect to find marked on a map. How are they classified, i.e. human or physical geographical features? What examples of each do they know of in the outdoor learning area?

Introductory activity (groups of four)

Memory game relay

Give each group a copy of the map symbols key card and revise the symbols and their meaning, pointing out real-life examples in the setting.

1. Each group lays the cards face-down on the ground and then mixes them up.
2. The group then line up behind a marked point, e.g. a rolled-up jumper or a playground marking.
3. One child at a time runs to the cards and turns over two. If they're a pair, they keep the cards; if they're not, they turn the cards back over.
4. The next child does the same once the first child has returned to the line, and so on until all the pairs have been found.