

Buckden  
House OEC

Orienteering

# Introduction

Orienteering is a sport that combines map-reading and cross-country running. Competitions are often run against the clock. Orienteers navigate their way between control points marked on a specially drawn map. Orienteering can take place anywhere from remote forest and countryside to urban parks and school playgrounds. The most challenging orienteering takes place in remote areas which have demanding terrain and fewer paths.

Orienteering originated in Scandinavia as a military exercise, in the late 19th century. The sport began in Norway where the first competition was held near Oslo in October 1897.

This collection of lessons, games and activities is designed to introduce students to the sport of orienteering. They can be adapted to suit the age and ability of the group.

## **Structuring the session:**

When deciding what to put in and what to leave out of the session the staff member needs to assess the following:

- 1 The aptitude and prior experience of the group
- 2 The options available in terms of theoretical, practical, indoors and outdoors sessions.

This booklet aims to provide you with some elements of the second point. It groups the exercises roughly by type, but is not a definitive progression or lesson plan. Factors such as time available, weather and the group's motivation will all influence the exact order and content of any given orienteering session.

## **How to use this booklet:**

This booklet will guide you through the available exercises and lessons. In a half day session you will not have the time available to be able to fully complete all the sessions, so you will need to select the sessions that will suit your group, the weather conditions, staff available etc.

You may have seen some of the sessions before and have alternative methods or even quite different ideas. If so please talk them through with the Head of Centre or Senior Instructor; we welcome new ideas.

However, you are authorised to carry out the session as described in this booklet, so if you improvise and something goes wrong, the Centre may not be in a position to back you up as it would be able to if working to our risk assessments. It is safest to

consult first.

Each sub-section is laid out in a similar manner containing some or all of the following points:

**Session:** this gives a rough idea of what the session aims to achieve as well as where it can take place and roughly how long it will last.

**Equipment:** this tells you what you will need for each session with an idea of how to lay it out.

**Running:** this explains what should happen, the rules and any alternative suggestions.

**Hazards:** this explains any hazards, together with suggestions on how to avoid them. It should be read in conjunction with the general risk assessment following this introduction.

# Risk Assessment

As with any other session you are responsible to the Head of Centre for the safety and good conduct of you group for the duration of the session. If faced with a situation not otherwise covered by this document, use your common sense and err on the side of caution.

Staff Competency: the leader of these activities will be expected to have experience of working with similar groups (if only in the classroom environment), to have read and understood this document and have the approval of the Head of Centre or designated other.

## Hazard

## Action taken

Stream in grounds

Avoidance, briefing and awareness of group members.

Beck in village

Check water levels in grounds, consult centre staff. Place a member of staff within view of the beck and brief students about crossing it before the session begins.

Archery

Make the students aware of any archery session that may be running concurrently with activities run in the garden. No students should enter the exclusion zone marked by a red rope.

Environmental hazards

Dress for the season (and check what students are wearing under waterproofs). In the summer make sure that students are well hydrated as this should be a fairly sweaty activity. Long sleeves and trousers guard against sunburn and insect stings or bites.

Slips and trips

It will be expected that the students will be running as fast movement is encouraged on these sessions. However kerbs and other outdoor equipment should be identified as trip hazards to students. It is better to run fast on softer surfaces such as grass rather than on harder surfaces such as gravel or tarmac.

Before the sessions it is a good idea to check the grip on footwear and that they are done up correctly.

Traffic

This is a relatively small hazard when in the grounds and the students can be briefed beforehand. When in the village the risk is greater. When en route to the village orienteering, group control is paramount for safety.

Students running away

Students can disappear into the toilets, village shop and many other places. Know how many there are in your group and know where they should be at all times. By the nature of the activity you may not actually know where all the students are. Ensure that no student is ever alone - work in pairs at least, and keep in mind when you expect to see students return from any orienteering task that you set. If a group look tired or are losing interest, change the activity or take a break. Students without concentration are students with reduced safety.

# Orienteering terminology

Control point	a point marked on the map where there is a kite (see below). Orienteers aim to locate these control points as efficiently, and as fast, as possible.
Control description	this briefly describes the control point, e.g. house corner. The description aids the orienteer in locating the control point, or kite.
Fixed time score event	the team has a set time in which to collect as many control points as they can. It is up to the team to look at the number of points awarded for each control and decide on their route. There is a penalty for every minute overdue. If you are doing this event in teams, decide if the team can separate or if they have to stay together. A watch between each team is useful if running this event. This is a method suitable for more confident orienteers, and otherwise very useful if you have limited time in a session and want to keep the excitement right up to the end!
Kite	control marker. An orange (or red) and white marker hung at each feature circled on the map. The control description relates to this. Each marker has an identification code on it, normally two letters, plus a number indicating which control it is e.g. control one might be marked 1 / CB
Leg	the section of a course between two control points
Orienteering	turning a map until it matches the landmarks on the ground
Race	contestants have to visit all the control points and return to the start having collected the information. Each group plan their own route. It is a timed event and the winner is the group who have visited all the control points in the shortest time. If you are doing this event in teams, decide if the team can separate or if they have to stay together. This is the 'classic' event and is most suitable for more mature, competent, and especially competitive groups - once you set the teams off (normally a staggered start) you may not see them until they have completed the course. On a mountain marathon this may be twelve hours later.

## Star event

the contestants are given a control point to go to and they return to the start point after collecting the information from that control. If they have the correct information, and have therefore visited the right control, they are then given another control point to go to. This continues until they have been to every control point. By using this method you know where each team should be. You can also control where each team goes and therefore not have everyone looking for the same control point at the same time. This is a method suitable for inexperienced or nervous orienteers (and orienteering leaders!) as it allows most control and guidance of teams.

# Score Sheet

The Leaders' score/control sheet can be used for the indoor orienteering, in grounds orienteering and the village orienteering sessions. A sheet is needed for each event.

For all events you will need to fill in the team name chosen by the students and the names of the team members.

There are various ways of using the score sheet depending on which type of event you are doing.

For a **star event**, circle the control number that a team has been sent to, then cross it out when they have returned successfully. This way you know where each team should be and do not have everyone going to the same control point at the same time.

For a **fixed time score event**, a start time will need to be filled in. When the teams return the finish time will need to be completed as well as the control points that were visited. The final total score can then be worked out. The value of points for each control point is on the back of the village orienteering map.

For a **race** to complete the course, a start and finish time will be required. On their return the controls visited can be completed as a check. The winner is the group who have collected all the correct information in the shortest time.

# Bird's Eye

## Session:

This session makes the students think about what maps are, what they can and what they cannot do. The overall aim of the session is for each student to produce a map of the area in which they are sitting. It is best carried out in a self-contained area with a stable environment, ideally with lots of features. A common room or classroom is ideal, although a small outdoor space might work.

The session should last between ten minutes and half an hour depending upon the amount of explanation that the group needs, plus the enjoyment it takes in drawing. This is a good session to start with, especially if the weather is poor.

## Equipment:

At least one sheet of A4 paper per student  
Pens/pencils/ coloured pencils/rulers  
A comfortable writing surface

## Running the session:

At the start of the session time spent on question and answer is useful. Examples of issues that could be discussed are:

- A map is a view of any area from above - a bird's eye view'
- Think about what is in the area that is to be drawn as a map and how these objects relate to one another
- Objects look very different from above rather than from the side - how does a table or a chair look?
- Some objects look very similar when seen from above; a rug, for example, will look like a rectangle, but so will a table. There are some ways round this:
  - i) Symbols - a drawing that means a particular object whenever you see it on a map, even if the symbol does not much resemble the object
  - ii) Colours - a particular type of object always has the same colour, for example, water on maps is always blue, so a blue line on a map will always be a stream or river, never a road or wall.
  - iii) We can use words sometimes, to show something unique, but if we use them too much the map looks cluttered.

## Hazards:

There are few hazards to this session not present in any classroom. However, if you

wish students to stand on chairs or tables to get a better idea of the room seen from above, make sure that the structure is solid, the landing is soft and be nearby to catch them if they fall.

# Map Symbol Race

## **Session:**

This session emphasises the meaning and importance of the symbols on maps and the use of the key. It is run as a relay race and begins to introduce the idea of orienteering as a fast-moving sport. The map memory race can be undertaken indoors, in a large room clear of obstructions; but it is better outside on a grassy area if the weather is good enough. If the session is being run indoors team members will crawl between the cards, but if it is run outside team members can run between the cards. The session will take around twenty minutes to complete, with five minutes spent on preparation and laying out.

## **Equipment:**

Map keys: a minimum of three, one for each team and one for you  
Two identical sets of cards, each with symbols and words

## **Running the session:**

The cards are laid out face up and not obscured by any other card, in four groups roughly on the points of a rectangle. The distance apart will be determined by the area in which the activity is being run. Lay out each set of cards so that the words are at the points on one side of the rectangle (this is the start line) and the symbols at the other side opposite to the words. Lay out a map key next to each set of words.

Divide the group into two teams of equal size and ability and put each team next to a set of word cards on the start line. Explain what the map key shows and show how one of the words on the cards can be found on the map key. Explain that each word card matches one of the symbol cards by going to the group of symbol cards and matching the word already picked up.

Explain that there will be a competition between the two teams, a relay race to match up the word cards with the symbol cards. One member of each team picks up a word card, and the map key, goes to the symbol cards, finds the symbol that matches the word on the card that they picked up and returns to the start line with it.

The staff member then checks on their map key that the correct word and symbol have been matched. If they have correctly matched the cards the next member of the team takes another word and sets out to find the correct symbol. If they have not got the correct cards matched send the student back to replace both cards in the correct place. Only when the cards have been replaced, may the next student pick up a word card and set off to find a match. The first team to correctly match all the word cards to the symbol cards is the winning team.

The session can be made harder by allowing the students to study the map key and memorise the symbol which they need to find and then not taking the map key with them when they go to find the symbol. This will improve their memory of the symbols used on maps - a useful skill in orienteering, where stopping to study the map key wastes time.

Another variation is to place all the symbol cards face down with the word cards next to them the right way up. The group sit round the cards and each student picks up a word card and takes a turn to match a symbol card. The student can only turn over one card on each go and if it does not match the word then the symbol must be replaced face down. In this way, if a student sees someone else pick up (and replace as not matching) the symbol which matches their word, they then need to remember where that card was put down so that when their turn comes they can correctly find the symbol which matches their word card.

**Hazards:**

Make sure that the area used is suitable. Ensure that the two groups are moving parallel to each other and are not going across each other's path to reduce the risk of collision. If running outside, good grip on footwear and laces done up will cut down on slips.

# Indoor Orienteering

## **Session:**

This session introduces a basic map and also the idea of looking for specific places on that map. It is run inside Buckden House and is best done as a star event. The students are looking for answers to specific questions at certain points marked on the map. The session will take around half an hour to complete.

## **Equipment:**

Indoor orienteering maps

Answer sheet

Score sheet

Pencil/pen

## **Running the session:**

Before running the session a member of staff will need to check the answers to the questions with elements that can change from day to day eg. the meal choice.

Get the group to work in pairs or threes and give them a map to look at. Orientate the map with them and point out various features such as doors, stairs, corridors etc. Make sure that they all understand the map. Look at the reverse of the map and show them the questions.

A score sheet is completed with each team's name and which control each team is going to go to first (see the page in this booklet on using a score sheet).

Each pair is then sent off to find a different control point and find the answer to the question on the back of the map. They return to the start point with their answer and confirm with the member of staff there that it is correct. If they have found the correct answer they are given another point to go to. This continues until they have visited all the control points being used.

If a group cannot find the answer to a question they should return to you for help rather than wander around the house.

## **Hazards:**

Good group control is required and an awareness of where everyone is so that students do not disappear. Make the students aware that they are not allowed in certain areas e.g. upstairs, kitchen etc.

# Which Way Up?

## **Session:**

Setting the map to fit the ground or orientating it is the bedrock of successful navigation and orienteering. Knowing where you are on the map at all times is also important but rather harder to do. This short, twenty minute exercise brings both these skills together. It is best run outside but can be run inside.

## **Equipment:**

Sixteen plastic cones  
Set of cards (marked with crosses and a route)

## **Running the session:**

Lay out the cones in a grid of four by four. The grid can be as large as you wish although the cones in the grid should be relatively easily observable by the staff member. Try and lay out one edge of the grid along an easily recognisable line e.g. the edge of the lawn.

Divide the students into small teams or pairs and show them the cards. Explain that the cards show the four by four grid shown from above, a blue line marking the start line, and a line running between or around the cones which indicates a route for a team to follow. Each card has an easy course and a harder course.

The aim is for the students to follow the route marked on a card *while keeping the card matching up with the ground*. This is done by ensuring that the start line on the card is always pointing towards the start line on the ground - the map itself never changes direction, only the team carrying it does. To practice this get a team member to hold a card and *walk round it* while the card stays in the same place.

While the team is going round the course ensure that every member has an opportunity to hold the card and practice 'thumbing' the map. This is done by keeping a thumb (or similar digit) on the card exactly where the team is all the time.

The easiest way to run the session is to practice with one or two teams with a staff member shadowing them. As confidence and ability grow the teams can be set off independently with each team being monitored more remotely. Each team should always have the map card orientated correctly and know exactly where they are on the grid.

## **Hazards:**

Good group control and a well chosen area for the exercise are the main safety requirements.

# In Grounds Orienteering

## **Session:**

This session introduces the orienteering map with the correct symbols and also the idea of looking for orienteering markers. This is run in the garden of Buckden House and is best done as a star event. The session will take around half an hour to complete, with ten minutes spent putting out the kites beforehand.

## **Equipment:**

In grounds maps

Answer sheet

10 orienteering kites (orange and white)

Score sheet

Pencil/pen

## **Running the session:**

Before taking the group outside a member of staff needs to put out the kites at the correct control points. The kites are numbered and need to go on the correct numbered control point as marked and described on the map. The control points are a hook marked with yellow paint. There are 10 control points but you may wish to shorten the session by not using them all.

When all the kites are in place the group meet at the start point marked as  $\Delta$  on the map (the gravel area in front of the small dining room window). Get the group to work in pairs or threes and give them a map to look at. Orientate the map with them and point out various features such as the building, drive, pond etc. Make sure that they all understand the map. Look at the reverse of the map and go through the descriptions of the control points.

A score sheet is completed with each team's name and which control each team is going to go to first (see the page in this booklet on using a score sheet).

Each pair is then sent off to find a different control point and note the two letters on the kite. They return to the start point having memorised the letters and confirm with the member of staff there that they have the correct answer. If they have found the correct control point they are given another point to go to. This continues until they have visited all the control points being used.

At the end of the session please collect all the kites and return them to the box. This can be done by the group with each team collecting one or two each.

**Hazards:**

Good group control is required and an awareness of where everyone is so that students do not disappear. Make the students aware that they are not allowed in certain areas - in the high ropes area and past the red rope round the low ropes area. If there is an archery session in progress there will also be a red rope marking out the archery area that must not be entered.

# Village Orienteering

## **Session:**

This session takes place on the outskirts of the village and introduces a simple orienteering course using all the knowledge gained from the previous sessions. It can be run in various ways: as a race, a fixed time score event or as a star event (see orienteering terminology sheet). The session will take around an hour to complete including time spent on preparation and getting to the start. The time will vary depending on which type of event is done and how many control points are visited.

This session will be easier to run if there are two members of staff available to supervise.

## **Equipment:**

Village orienteering maps

Student's answer sheet

Answer sheet

Score sheet

Pen/pencils

Watches

Safety sack

## **Running the session:**

First decide what type of event would be most suitable for the group - a star event, a race or a fixed time score event. The village orienteering map can be given to the students to find the way through the village to the car park and the start of the Raikes path to Cray and Buckden Pike. If you intend to use all the control points take the path to the right, through the gate and towards Buckden Beck.

Orienteer the map with them and point out various features. Make sure that they all understand the map. Look at the reverse of the map and go through the descriptions of the control points. Point out that control point 5 is not that far up the Gill and to be careful by the beck. Go through the course boundaries and that they do not go into the car park, on any roads or climb any fences and are careful of the beck.

The students can work in pairs/small groups and are given a score card and pencil per group. They are looking for a red mark and nearby will be a bolt in rock or wood. Each marker has an identification code on it which is a series of lines e.g. control one might be marked \/. They will draw the answer in the correct square on their score sheet.

A score sheet is completed with the names and start times if required depending of

the type of event being run. Ensure that if you are doing a fixed time event that everyone knows what time they have to be back and have means of knowing the time.

**Hazards:**

You need to be aware of where everyone is on the course. Two members of staff are useful on this session to supervise. They need to stand where they can see the maximum number of control points. Standing near control point 8 gives a good view of a lot of the course, as does standing by the tree on the wall corner between points 6 and 7.

Be aware that students looking for control point 5 do not go too far up the *Gill*, and at control point 10 they should not go through the gateway. Make sure that everyone knows where the boundaries are and what to do if they are in trouble.

Leaders may choose to limit those points to be visited due to:

- having only one member of staff supervising - only allow control points easy to observe
- limited time (although a more competent group may respond well to a timed event)
- objective hazards, such as very slippery surfaces (snow, sodden ground) or high water