



Introduction to Orienteering

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- The orienteering map
- Where can you go orienteering?
- What happens at an event?
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What is Orienteering?



Orienteering is a sport, which combines outdoor adventure with map reading and navigational skills. It involves navigating through the bush, parks or streets with the aid of a specially produced map and orienteering compass, with the aim being to locate checkpoints (controls) on various natural and man-made features along the way, such as a boulder, track junction, bench seat or street lamp. Controls are generally represented by distinctive orange and white flags (pictured).

The skill in orienteering is in choosing the best route between controls — while beginners' courses may not offer choice, as you progress you will learn to decide between options — perhaps over a hill or a longer route which goes round it. It is this stimulating mental challenge as well as the physical activity that makes orienteering so popular. Each event may have a number of courses of differing lengths and levels of difficulty occurring at the same time.

You can start with an orienteering course that is a pleasant stroll, either alone or in a group, along bush tracks, and then progress when you wish to the more demanding courses as your navigating skills and fitness improve. Orienteering is a sport for everyone, no matter their age or experience. Orienteering is famous for events in which elite orienteers and recreational orienteers, men and women, aged from young children to over 90-year-olds can enjoy the sport together. You can walk, jog or run, depending on your level of fitness and how competitive you wish to be. Whilst orienteering is an individual sport, participation in pairs or small groups is encouraged at the beginner level. Participants at any event include both club members and non-members.

In competitive orienteering, the person successfully navigating their way around their course in the quickest time is the winner, hence both physical fitness and ability to read maps become important. To complete an orienteering course may take as little as 20 minutes for a short easy course, or up to 90 minutes for a longer difficult course.

Orienteering comes in several flavours:

- Foot-Orienteering – the most common in Australia where competitors run/walk,
- Mountain Bike Orienteering (MBO) - similar to foot orienteering but competitors navigate mountain bikes over different grades of tracks between control points. Further details are available by following the link above.
- Ski-Orienteering (SkiO) – not very common in Australia, mainly due to poor ski conditions. The sport is similar to MBO with competitors using standard cross country ski equipment along with a map holder attached to the chest to navigate complex track systems.
- Trail-Orienteering - is inclusive of disabled competitors; the object is accuracy, not time. This involves determining, along a set accessible course, which of various controls in a small area is the one indicated on the map; another form involves determining the position on a map of a control viewed from a set point 30-40 meters away.



Why do people orienteer?

Lots of reasons!



It's an **adventure sport** – people love adventure.. The adventure can be as gentle or extreme as you want. It might be a stroll around a park, or a fast-paced dash over mountains, cliffs and streams in a foreign country.

It's a **sport for life** - orienteering is a truly transgenerational sport. It caters for people between 8 and 80 no matter what their level..

Fitness - Orienteering offers an enjoyable way of getting exercise - the mental challenge of navigation takes your mind off the fact

that you're running/walking. Before you know it you're back at the finish having walked/run 3-8 km (depending on course selected).

Getting out in the bush - the Australian bush offers easy running in superb terrain - you can even enjoy the occasional meeting with wildlife (kangaroos, wallabies).

Social atmosphere - although it's a competitive sport, the vast majority of orienteers don't take it too seriously. A key part of the sport is the social environment before and after events - where you can swap stories with peers or ask advice from more experienced orienteers.



It's as competitive as you like – orienteering can be a gentle noncompetitive stroll or it can be taken to the highest level. Elite competitors compete in World Championships yearly and with training regimes similar to the best distance runners in the world.

Learn to navigate - every orienteering event caters for a range of skills and fitness - a typical event offers a range of courses with distances of 2-18 km and navigational difficulty from Very Easy through to Hard. Orienteering can help foster independence and confidence.

It's a **family sport** - the range of courses provided offers one suitable for every person in the family from 8 to 80; there's even a string course for young children to entertain them and introduce them to some of the concepts in orienteering at an early age.



It's **well organised** - if you like taking part in something that's really well run or even helping to run events, orienteering offers plenty of opportunity here.

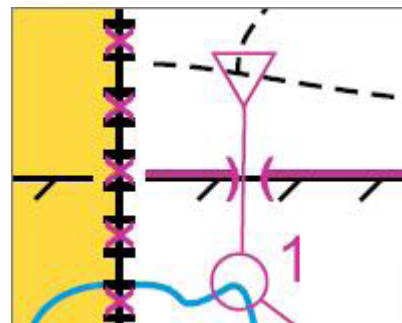


It's **great value for money** - Higher prices are charged for events that use colour-printed maps and require a large amount of work to arrange. Low-key events such as street events or club events charge lower-prices. Given the time required to prepare especially made maps, check areas, make-up courses and check control sites, there are few, if any sports that can claim such high value for money!

The Orienteering Map

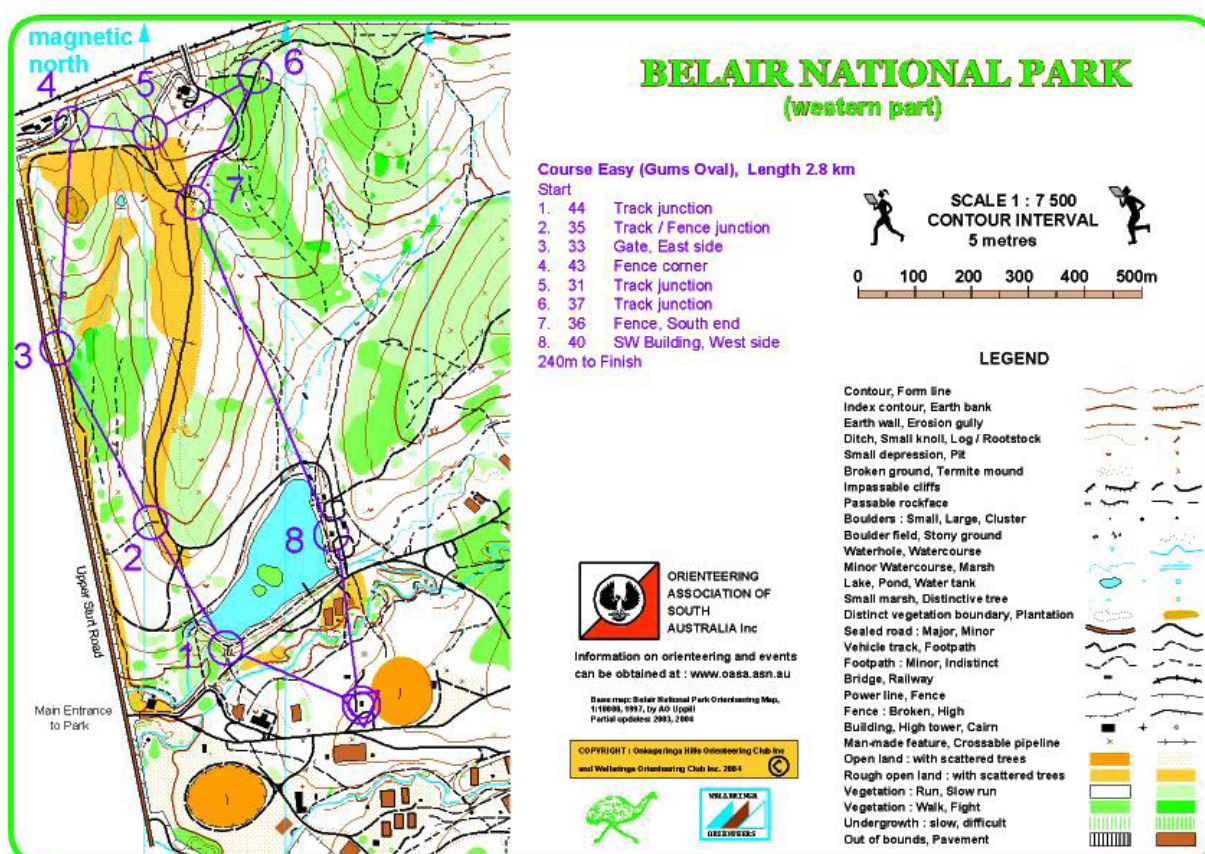
While there are many forms of orienteering, the common element that applies to all of these is a map. In most cases, the map identifies:

- Where you start; usually identified by a triangle. As you leave the start, your name, course and start time will be recorded.
- A series of control sites that are to be visited by you; these are marked by circles and numbered in the order (1, 2, 3, 4....) in which you must visit them.
- A description of what to look for at the Control Site - e.g. 1m rock, track junction, head of watercourse - this is called a 'feature' and is usually marked on the map. The circle that appears on the map is centred around the feature to be found with a bright flag and punch located at the centre of the circle. The punches (pins or electronic) on the control stand are used by the runner to mark his control card or electronic tag, to prove they have visited the control site.
- A finish location; where organisers will welcome you back, record your finish time and calculate your result. (Note that although the time is recorded, many orienteers take part for the enjoyment of being there - the walking category is one of the fastest growing aspects of orienteering).



Other things that might be on a map include:

- Key or Legend - that identifies what each of the symbols on the map mean
- The map scale - that allows you to work out how far it is between points on the map
- The contour interval - contours are lines on the map that tell you how high/low various points are. The contour interval is the height distance between adjacent contour lines - typically 5 metres.
- North-South lines - that tell you which way is magnetic north - so you can turn the map so



Maps

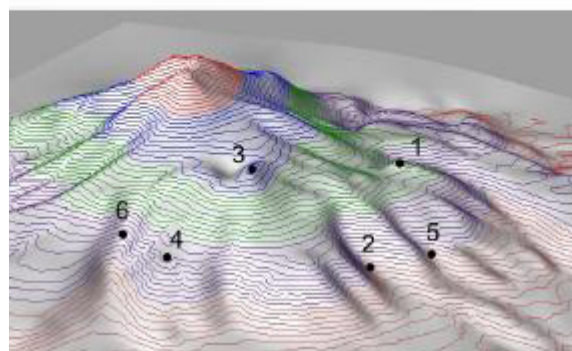
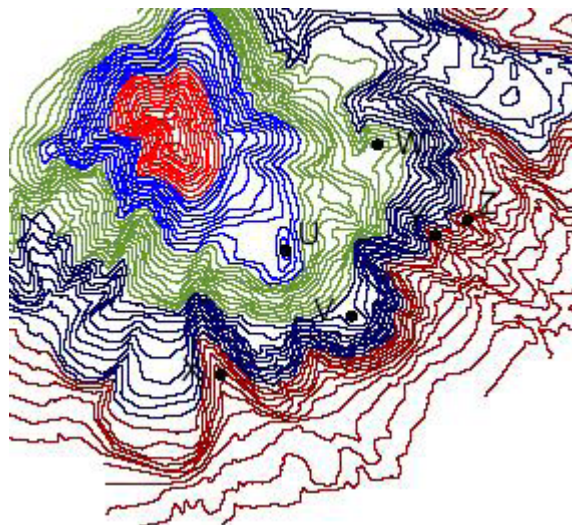
Orienteering maps are made especially for bush navigation and show much more detail than most topographic maps. Such maps depict natural features such as contours, watercourses, rock detail and vegetation as well as constructed features such as roads, buildings and power lines. Long lines across the map with arrowheads show the direction of magnetic north. Orienteering maps are always produced with the top of the map aligned to magnetic north.

A scale bar shows the scale of the map — usually, 1 cm equals 150 metres (1:15,000) or 1 cm equals 100 metres (1:10,000). For park and school maps of smaller areas, the scale may be even larger eg 1:5000 enabling a lot of detail to be shown.

Most maps produced for orienteering are printed in colour. Different types of features have characteristic coloured symbols as follows:

- vegetation — white is for open, runnable forest, while green patches are for denser vegetation bush which will impede progress, and yellow areas are for open land;
- water features — are marked in blue and these could include creeks, dams and marshes even if then are dry;
- earth features — are marked in brown and they include contour lines which show the shape of the land, and other things such as earth walls and termite mounds;
- roads, rocks and man-made features — any mapped rocks and all man-made features (roads, tracks, fences, powerlines, buildings, etc) are all marked as black.
- Grey may be used to show areas of crossbale bare rock, or areas under a building which are passable (generally only on urban maps)

Contour lines join points of equal height above sea level and are used to depict the shape of the terrain. They are often considered the most important navigational tool on the map and are important if evolving to harder courses. The height intervals between contours on a map are regular, usually 5m on most orienteering maps. The shape and the position of the contours indicate the shape of the ground. Contours relatively far apart, show gently sloping ground while those close together indicate steeper ground. Topographic features such as spurs, gullies and saddles have their own contour patterns which experienced orienteers can understand and use to help them to navigate. Sometimes slope lines (small tags on the contours) are used to indicate the downhill side of the contour. Form lines (indicated as dashed brown lines) may be used to show distinctive land shapes eg. small knolls between the contour lines.



Coaching tips produced for private use only are available (check out this equivalent page on orienteering.asn.au).

Where does orienteering take place?



Orienteering takes place in a range of places. Traditionally a forest sport, areas used for orienteering include parks and forest reserves as well as private grazing land and bushland. An increasing number of events are being held in urban areas including urban parks, suburb streets and even through urban landscapes such as around university buildings. Events nowadays are held almost everywhere but predominate around major centres. Check out the state association to see if there are events or clubs based in your area. Complete directions and locations of events will be listed as part of their event schedules.

How to Find Events

Directions to the events are detailed in event programmes and signposted from major roads. Signs are usually placed near the event location to guide you to the parking area. The signs are either words, or an "orienteering flag" symbol in red and white (below right).



Types of Events

In Australia, events are organised by State Associations/Clubs.

National Carnivals

Australia has a series of open National all-age events held annually. This includes the two major carnivals (Australian 3-Days and Australian Championships) which are shared amongst the states. All states hold at least one major carnival every 3-4 years.

- Australian 3-Days – held over Easter
- Australian Championships Carnival – held last week September or first week in October

Details of major events can be found on orienteering.asn.au

General Events

Orienteering events are held all the time, you should always check your local state association or club for event details.

Typically, orienteering events in the bush are held on most Sunday mornings between March and September (occasionally there will also be a course on Saturday). You can usually start your course some time between 9.30am and 11.30am. This does vary, so please check the available start times before you arrive!



Over summer a number of low key events are run, typically through streets and parks of suburbs and often on a week night.

EXAMPLE: Orienteering ACT runs 5 programs for orienteering each year.

Name	Season	Day	Start times	Courses [^]
Classic	March–October	Sunday*	10:00am – 12:30pm	Minor: Blue, Green, 1 × Orange, 3 × Red SL: Blue, Green, 2 × Orange, 4 × Red
Saturday	May–August	Saturday	10:30am – 12:30pm	Blue, Green, 2 × Orange
Community	May–October	Wednesday	12:00pm – 1:00pm	Green, 2 × Orange
Twilight	November–March	Wednesday	5pm – 6:30pm	Green, 2 × Orange
Mountain Bike	April–November	Sunday	10am – 12:00pm	Usually Long, Medium and Short

[^] The coding of courses vary from state to state, in the ACT, red courses offer the hardest navigation, blue courses the easiest navigation.

* Events, such as championships, may be held on Saturdays or be multi-day events.

Many states also have a schools program. Please contact your state association for further details about schools programs.



For dedicated orienteers, there is the opportunity to travel interstate and overseas to the major state, national and international competitions. Talented juniors and elite competitors can strive to be selected to represent Australia at World Championships while those over 35 have the opportunity to compete at yearly World Masters Championships.

What happens at an event?

At the Event you will undergo:

- Selecting a course
- Registering your entry
- Getting out on the course
- Post event

These will all vary slightly depending on the event and the location. The following steps provide a guide only of what to expect at an event. If you are unclear at all, follow instructions (generally displayed near registration) or ask someone for help. Orienteers are a very friendly group always willing to assist if asked.

Selecting a course

At an event there may be up to 10 courses which vary both in length (from around 1.5 up to 10 km), and in their navigational difficulty. Completing an orienteering course may take about 20-40 minutes for the easier courses, and 1-2 hours for experienced orienteers on the more difficult courses. People new to orienteering should try the shorter "Easy" or "Very Easy" courses first. Later you may progress -- if you wish -- to running alone as hard as your map reading ability and fitness will allow.

Note that summer events at metropolitan areas typically don't have a choice. For these events the aim is often to collect as many control points on a map as possible in a set time period. Harder control points or those further away are typically worth more points. This format is known as a score event.

Groups may choose to do a course together, with a small extra charge for extra maps.

Adults who are familiar with map reading (eg. from bushwalking) can usually go straight to a navigationally easy or moderate level course. Children and those with no map reading experience, it is better to choose a very easy course to begin with. Competitors may advance from one level of the course to the next as they learn the basic map reading and navigational skills and successfully complete the easier courses and gain confidence.

Event information boards will describe the courses which are available and any other information which you need to know. If unsure at any stage, please ask.

Entry

After you have decided on your course you will probably have to fill in your details on a combined registration form and control card. The registration form is usually a tear-off end of your control card. At many major events, pre-marked maps are provided to entrants who register and pay in advance. These pre-entries usually close 2 weeks prior to the event but there will be some "enter on day" courses available as well. If you are pre-entering an event, you will fill in your registration information at home, and the organisers will have your control card ready for you when you arrive at the event. Registration information is most important as it provides the organiser with a record of all the participants and as a check that you have returned safely.

Having completed the registration information, proceed to the registration table and pay the entry fee. At minor "come and try it" events, you will receive a copy of the map and the "control descriptions" for your course. At major championship events, you first see your map and course only as you start off. You may be allocated a start time at registration, or at the start, or you may even just start yourself when ready. Ask the organisers how the start will work if you are unclear. When you are ready, make your way to the Start keeping in mind your start time if allocated.

The following event entry fees are an **example** from Orienteering ACT in 2006.

	Member Type	Course Level	
		Green / Blue	Red / Orange
Adult	Member	\$6	\$8
	Non-member	\$10	\$15
Junior / Concession	Member	\$6	\$6
	Non-member	\$10	\$10
Family Maximum	Member	\$18	\$22
	Non-member	\$30	\$40

Extra Maps: metropolitan \$2, non-metropolitan \$3

When a series of events are held, some states will provide discounts for entering the entire series at the same time.

Master Maps

For some minor events, you will be required to copy the locations of control sites from a master map (there may be several – make sure you choose the right one) onto your map. This may or may not be after your start. If you are a newcomer, ask for assistance – someone will be willing to help out. You don't want to accidentally mark a control point in the wrong spot and spoil your event.

Control Descriptions

These fully and accurately describe the location of the control markers on your course. Included is the identifying code for the control to enable you to confirm you are at the right control! There is an international symbol (graphical) version used at major events but English versions should also be available.

Control descriptions may be on the map, or you may have to collect them separately or be provided them at registration.

The start of the event may be some distance from the registration area, so before you set off, check that you have:

- Your map and a plastic bag to protect it
- The control description list
- Your control card
- A compass (if you want)
- A whistle for safety
- A watch to check the time

The route to the start will be indicated by signs and/or streamers.

The Start

At the start, report to an official. Wait for your start time or ask to be allocated a start time. Competitors doing the same course are generally separated by at least two minute intervals to minimise following. You may stay in a group if this is how you have entered.

The starter will generally call out start times, and a series of beeps are traditionally used to start each wave of competitors. Make sure you collect the correct map, or copy the correct master map as required. Once ready, you can start navigating your way around the course.

On the Course

As soon as you are ready, navigate (find your way) to your first control.

A number of skills are generally used to navigate your way. The basic skills include:

- Orientating your map for direction (turning it so that the North Arrows face magnetic north) – this can be done using the sun as a guide, features on the map and ground or by using a compass
- Feature recognition – using symbols on the map to recognise objects on the ground or vice-versa
- Distance estimation – being aware of the scale on the map, and how far you have travelled

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Control sites are generally marked by orange and white, triangular markers, called flags. These are often hung from trees and bushes or metal stands. The control number may be found on the side of these flags or on the stand. Urban events often use metal plates or ice cream buckets. Remember your control descriptions will provide detailed information about the feature your control is on.

When using a control card, the plastic punches will be hung from the flag, or on the metal stand. These are used to mark the relevant box on the control card (e.g. the punch for the first control goes in box number 1). Each flag has a different patterned punch and this is used to indicate that you have visited the correct control site. In urban events, you may have to write the corresponding code of the control marker on to your control card. Whatever marker system is being used, a sample will be displayed at registration.

During a normal line course, you must visit the controls in their listed order. The code on the control marker will correspond to your control descriptions to let you know if you are at the right control. When you get to the control, check that the feature and code number on the control flag or stand match your control description list. If you are sure it is the control on your course, use the punch on the stand or on the control to punch the corresponding numbered square on your control card.

If you are uncertain where you are:

- It is extremely rare for someone to be totally lost at an orienteering event. It is more likely for you to be unsure of your exact position but to be somewhere relatively near the control.
- First try to relocate yourself. Use obvious, linear features such as tracks, fences or creeks, if available, or go back to your previous control.
- If you are still “geographically embarrassed” and are unable to find where you are on the map, ask another orienteer for help or wait for assistance at any control you find. Someone will collect the controls after the course closure time and will be able to take you back to the assembly area. If you follow the safety bearing given at the start, you may be able to get back to the assembly area on your own.
- If all else fails, or if you are injured, stay still and blow your whistle. The emergency signal is six blasts at ten second intervals, repeated every two minutes. Anyone hearing this must abandon their course and come to your assistance.

The Finish

As you pass the Finish (marked with a banner and often the same as the start at minor events), your time will be recorded and written on your control card which is handed to the finish officials. The card will then be checked to see that the controls on your course have been visited.

If you do not complete the entire course which you have chosen, always report to the finish so the organisers know that there are no competitors still out in the bush at the conclusion of the event. There will be a course closure time for each event, and you must return to the finish by that time to enable the organisers to ensure you are safe.

Results

Provisional results are always displayed near the registration shortly after you finish. Final results are generally published on a club or association website as well as newsletters. At major events, results are based on age classes and separated for Men and Women. At smaller events, results are based on the courses provided on the day.

After the Event

Keep your map to study and perhaps draw in the way you went and look for better route choices. You may like to discuss your event with a more experienced orienteer or coach so that you can learn from your mistakes. Discussions about courses can be a great social starter.

Now is a good time to set up the barbecue, make a start on lunch and have a drink, relaxing in the clean forest air away from the stress of the city. Some food and equipment supplies are often available at events as well. Consider becoming a member of a club to experience the sport further.



Electronic Timing Systems

While a number of electronic timing systems are used in orienteering world-wide (2 systems dominate), the Sport-Ident (SI) system is used in Australia.

SI is generally only used at major events, although it may be used for the start and finish only at some minor events.

The system replaces the card punching system traditionally used at orienteering events. Because the units for the system have to be mounted on a support, the control flags are used to hang the timing device. The control number will be on the SportIdent device and in some cases on the control flag. SportIdent has been used internationally for some years and is now used for major events in other states. In Queensland we are now using the timing system at all major events as well as at special events ie National Orienteering Day, Forest Racing Series.

How is SI used?

It consists of a small plastic electronic card (SI-card) which is of oval shape and 5 cm long. It is attached by a strap to a competitor's finger. It contains user information such as:

- Unique user-id
- Name
- Date of birth
- Club
- Contact details

Other information that the card contains is:

- Course Information
- Control Numbers
- Total Elapse Time
- Split Time for each control leg

How does it work?



At the Start, Finish and control sites, the special electronic punches (SI-units) which are mounted in plastic boxes and are attached to the control flag or stand. To record their start and finish times as well as the time at which each control was visited, a competitor simply places their SI-card in this unit. It will then flash a light and produce a beep to indicate the information has been successfully transferred from the unit to the card. The control number and the time it was visited will now be recorded on the card. After completing the course, this information is downloaded into a computer, producing information on the total elapsed time as well as the individual split times for each leg.

What if I do not have a SI-card?

At events where electronic timing is being used you can hire an SI-card (normally about \$2.00), however if you lose it or damage it you will be asked to re-pay the full replacement cost. Alternatively, if you are going to be a regular participant it is certainly worth your while to purchase one. The cost is around \$45.00 (incl GST) and they are available on request from state associations.

Should a unit fail, what do I do?

If for some reason the unit does not produce a flash and beep, the stands still have ordinary punches and the competitor should punch the side of their map instead.

Further information about sport-ident is available from clubs and state associations.

What do you need to take part?

To start with you don't need to bring much. A typical course will not take more than an hour, so you don't need to take a back-pack or food out on the course itself.

To enjoy the event, you will need to be prepared for a walk/run in the bush:

- Wear comfortable jogging or walking shoes
- Comfortable outdoor clothes
- Wear a hat and sunscreen on bright sunny days, a rain coat in wet weather
- Bring drinks, and perhaps a picnic, for after the event (water stops are provided on the longer courses)
- A change of clothes for after the event, if desired

Other items may be bought, or hired cheaply, at the event:

- A plastic whistle (a simple safety precaution in bush areas)
- A plastic bag for the map, in wet weather
- A compass (not really necessary, for our introductory courses)

Your entry fee includes the cost of the special orienteering map, and you do not have to be a member of a club or the state association to participate.

The nature of orienteering is such that you are in a relaxing parkland or forest environment and a picnic lunch is a great way to finish (or start) off the day. Bush events also often have some food and orienteering related equipment for purchase.

Don't worry if you have never read a map or used a compass before; the basic skills are easily learnt and experienced orienteers will be able to assist you at your first event. Speak to the person at the registration table who can assist.

Don't Bring

In keeping with our policies and because of the requirements of many landholders, we do not allow smoking, dogs or the lighting of fires at our events. We also encourage our participants to be environmentally conscious at all times.

Specialised Equipment

If you love the sport and become a regular, you will be interested in getting "all the right gear".

Orienteering specific gear starts with:

- Footwear
- Clothing
- Compasses
- Leg protection



Footwear

Sturdy footwear such as joggers is adequate for those beginning orienteering. There are a wide variety of special orienteering shoes available but many people find that trail running shoes are also quite suitable, especially on the typically hard Australian ground. Ankle support can also be an issue and some orienteers find comfort in a range of ankle braces or strapping techniques.

Orienteering specific clothing

Orienteering clothing includes a range of products designed to cover the body and protect against vegetation as well as being comfortable. Clothing ranges from “suits” made from lightweight, breathable nylon or lycra to more modern use of fitted coolmax materials and tights.

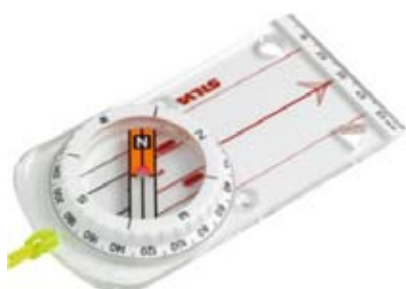
Leg protection

Some orienteers choose to wear gaiters in more densely vegetated bush orienteering areas. Gaiters are designed to protect your legs against the vegetation and small branches that are on the ground. They typically cover the leg below the knee. Knee high socks are typical in “lighter” areas.

Your local club member will be able to assist you more.

Compasses

Compasses are used primarily to assist the orienteer to navigate around the course and to provide a reading of magnetic north for map orientation (Note: some world champions are famous for not using a compass at all!).



Standard Style Base Plate
Traditional Orienteering Compass



Thumb Compass

The classical competition compass is a base plate model with rotatable housing. The rotatable housing allows for the taking of accurate bearings. Markings for different scales may also assist distance estimation. Base plates are generally used by placing on the map and rotating the map and housing as required. Models vary in terms of needle stability, needle speed and extras such as colours, scales, fixed or rotatable housings.

Thumb Compass

Thumb Compasses are ideal for those who don't need much in their compass. The thumb compass provides a straight and wide needle for easy and fast reading and is generally only used to orientate the map accurately. Many elites prefer the thumb compass.

Membership

You do not need to be a member to participate at most orienteering events. However, if you intend to become a regular participant, becoming a member has many benefits.

Orienteering Australia does not have direct membership, membership is through State Associations. Membership of state associations is on a calendar year basis. Membership fees vary between states and clubs. Please refer to your state association or club for membership fees.

Membership provides the following benefits:

- a regular state newsletter providing a listing of coming events, results, coaching tips, news and views;
- regular e-newsletters;
- subscription to the national quarterly magazine, The Australian Orienteer;
- discounted event entry fees (most states);
- assistance from experienced club members to help you improve your skills, including special coaching activities and training days;
- eligibility to win Annual Awards;
- social interaction with fellow club members;
- discounts through State Association sponsors;
- discounts through Orienteering Australia sponsors; and
- reciprocal rights interstate.

Membership forms are available at events and through your local club or state association.

More Information

If you are still looking for more information than that contained in the newcomers pages, feel free to browse through our website at www.orienteering.asn.au. Here you will find a lot of information including:

- History - a brief history of orienteering in Australia and internationally.
- Events - A guide to nationally listed events. Further events are listed by State Associations.
- State Associations - Check out your local State Association for further information in your area. You will find newsletters, e-newsletters, event guides, results, club details and more.
- The Australian Orienteer - Australia's excellent quarterly magazine included in all memberships.
- High Performance - details of Australia's high performance programs
- Orienteering Australia contacts - can't find what you want? - get in contact!

Schools Programs

States run their own schools programs culminating in Australian Schools Championships and an international with New Zealand. Check out your local State Association.

Corporate Programs

States are increasingly offering corporate programs with the knowledge that employees want to keep fit, be challenged and develop skills transferrable to the work place. Check out your local State Association.



More information

www.orienteering.asn.au

