Maps

It is critical that you have adequate maps for the area you are camping or hiking in. You need to have maps to get to and from your starting and finishing points plus any hiking trails. Make sure your map has sufficient detail so that you can read the terrain, trails and signs clearly. You can get maps from Government Departments, Scout Shops and map resellers. Some maps can be found on the internet, but it is best if you don’t rely on these.

Some good places to get maps are:
- Melbourne Map Centre  
  http://www.melbmap.com.au
- Map World  
  http://www.mapworld.com.au
- Wise Maps and Guides,  
  http://worldwidemaps.spiffystores.com

Photocopy the original map but take both with you. You can mark campsites or hike tracks on the photocopy. Make sure both are waterproof. You can do this by putting them in a plastic pocket and sticky taping the top completely shut.

Make sure you can see all necessary terrain though. Work with the photocopied map; you can fold it. Save your original for emergencies and next time.

Maps can become out of date and inaccurate. Check you have got the most recent map of the area you are going to.

ACTIVITY 1
MAP COMPARISON

Time: 10 minutes
Equipment: Examples of each type of map
Preparation: None

Discuss in small groups or as a Unit the differences between a topographic map and a tourist map. Is a tourist map sufficient for hiking?

ACTIVITY 2
GO BEYOND

Time: Own time
Equipment: None
Preparation: None

Explore either with your Unit or on your own Geocaching and Street orienteering. Also if you have access, learn how to properly use a hand held GPS.

Map Reading

Maps

Nine times out of ten, when you go hiking no-one in your group will have been there before. This is one of the great things about hiking, experiencing new and interesting places that you otherwise would never see, but to ensure you are able to plan and prepare for your hike it is essential that you can read and interpret your map fully!

Being able to read your map means that you will be able to choose an appropriate hike for you and your group’s ability and experience. You will know where the challenges will be, know if you’re going to need to cross water, get through any gates, if there are any toilets along the way, if there are any really steep hills up or down, how far you need to get each day to get to your campsite(s) and how long you think it will take you.

Before you start looking at hikes, learn how to read a map correctly. Start out by reading the legend on the map – how are water points marked, trails, roads, campsites, gates etc. What is the scale of the map, what distance does the map represent.

One of the hardest parts of reading a map is reading and understanding contour lines. Contour lines are the thin lines that you see all over maps, they indicate how far above sea level you are.
Some, but not all of the contour lines will be numbered with the number of meters above sea level. Using these lines you can see where the hills are, how steep they are and whether you will be walking up the hill, down the hill or around the hill.

When contour lines are close together this means that the hill is steep – because the change in height happens in a short distance. Therefore, when the contour lines are further apart the incline or decline is shallow. When contour lines come together to form a ‘V’ shape – this indicates a valley, where as when they join together to create a full circle – this is the top of the hill. Using this knowledge, you can follow the trail that you plan to follow and see how many ups and downs you will do during your hike, how steep they will be and calculate the vertical distance change you will walk. This will help you to estimate the amount of time you will need to allow for each section of your walk.

**Compasses**

A compass is one of those items you MUST pack when going camping, but that sometimes you will find you never touch it. Most of the time, being able to read the map is enough – especially when you are hiking along frequently used, well maintained and signed walks. Often being able to read the map and contour lines will allow you to use features of the land and knowledge of where you have walked to help identify where you are.

However, if you become lost or unsure where you are a compass can give you some essential clues to help you piece everything together. The first thing to do, if you need to establish where you are on the map, is to use your compass to identify north – this is important to make sure you have orientated your map correctly.

If you are in bushland, and you know where you are on the map and where you would like to go, you can use the compass to direct you straight there. Simply place the bottom of the compass base where you are and have the line down the centre of the compass (the directional line / arrow) either point to or cross over the point that you would like to arrive at. Now rotate the compass house (not the compass base) so that north points north on the map. This is called setting your compass.

Once your compass is set pick it up and hold it flat in front of you (the best way to hold your compass is to hold it flat on the palm of your hand at your belly button – this helps to stop you pointing your body in a different direction). Turn yourself around until the north compass needle lines up with the north on the compass – you are now facing the direction you need to walk to arrive at your chosen destination.

It is very important, if you are using a compass in this way, to remember to read the rest of the map and not just the direction. You must make sure that you plan your walk as always – are you going to have to cross a river, walk up or down a really steep hill that is potentially too steep to walk up or down, hit a fence you can’t get through for instance.

**ACTIVITY 1**

**PLAN IT OUT**

*Time:* 20-30 minutes  
*Equipment:* Copies of a topographic map  
*Preparation:* None

As an individual or in groups, look at the map and pick out a trail. Identify the length of the walk and what you will come across along the way (e.g. gates, toilets, river or creek, campsites etc.). Now have a look at the contour of the land – will you walk past a hill or a valley on the left or right, will you be walking up or down steep or shallow inclines or do you walk around a hill or along a valley?

Break the walk up into parts, estimate how long the walk will take you and if you can plan a place to stop for lunch and morning / afternoon tea.

**ACTIVITY 2**

**ROUTE PLAN**

*Time:* 20-30 minutes  
*Equipment:* Copies of a topographic map, Pen and copy of route plan  
*Preparation:* None

Using the same trail you selected in **Activity 1: Plan it out**, or choosing a different one, fill out a route plan using the template below. This condenses all the information about your trail you are going to hike onto one sheet.

It should live with your map. Break each day down into separate sections. This is normally done around meal times.

**ACTIVITY 3**

**ORIENTEERING**

*Time:* Own time  
*Equipment:* Map and Compass, suitable clothing, water  
*Preparation:* None

Investigate orienteering and give it a go with some family or friends. Contact Orienteering Australia for more information about how to get started or a local club:  
http://www.orienteering.asn.au/
Route Plan

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