

Lesson 1:

UNDERSTANDING A TOPOGRAPHICAL MAP AND ORIENTEERING

For the following tasks you will need to undertake your own research and take your time to familiarise yourself with topographical maps. Click on the image/link below for important information to help you to complete this task.

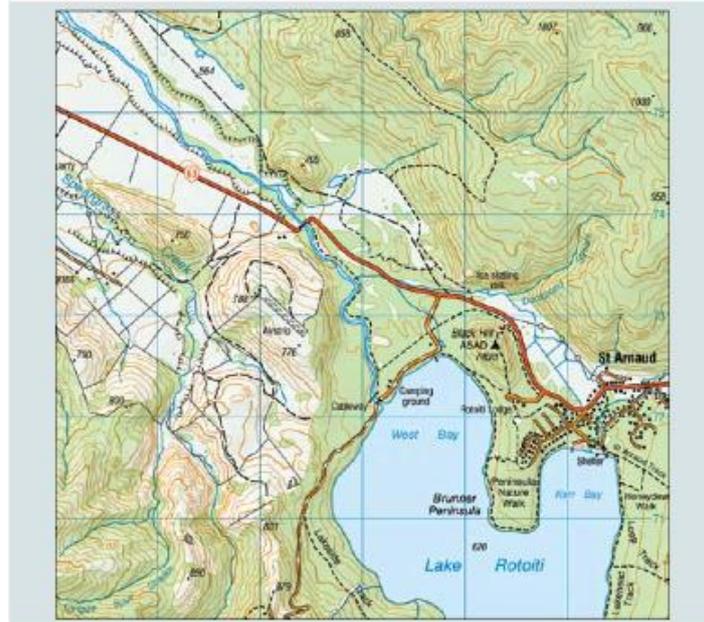


Used by New Zealand
Emergency Services

Map Reading Guide

How to use a Topographic map

1:50 000



http://www.linz.govt.nz/system/files_force/media/file-attachments/topo50-map-guide_0.pdf?download=1&download=1

Answer the following questions based on your new knowledge of Topographical
Maps

What is a Topographical Map?

What does scale 1:50 000 mean?

Which direction is north?

What is a contour line? Do contour values read uphill or downhill? What does this mean?

What is relief shading and why do they include it on a topographical map?

Which compass direction do latitude lines run? What about longitude lines?

There are two types of grid lines on a topographical map. What are their names?

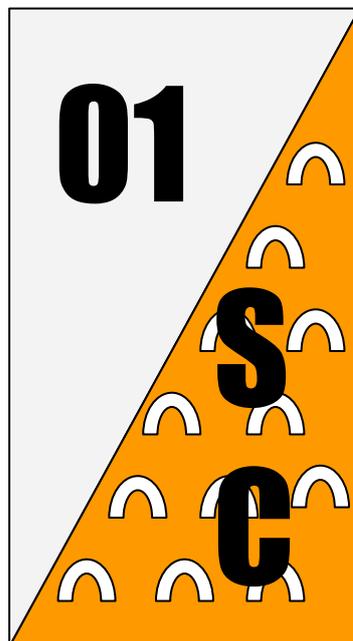
Now it is time for you to research how to use a compass! Find an informative video or article to learn how to use a compass. Once you have watched the video/read the article, put the link to it below.

Explain in 5 sentences how to use a compass.

2. Open [features topographical maps](#) (you will need to zoom to see the symbols clearly). Follow this key to add detail to your map. The following details must be included in your map (you will find other features you can also add in). Once you have drawn each of these details onto your map, you will also need to add each symbol/colour to your legend.

- **Vegetation Features** - use coloured pencil to colour the grassed areas you can see in the school. Use relief shading to show gradient (for example, the mound that corners the back field).
- **Sealed road surfaces** - Use the right symbol and colour to mark these areas.
- **Trees** - use the link above to find the symbol for trees, and plot these onto your map.
- **Sand** - use the link above to find the symbol for sand and include this where our sandpit is.
- **Fences** - use the symbol to mark the fences around school.
- **Monuments, plaques, signposts** - use the symbol to mark where these are around the school.

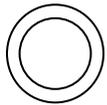
3. Using google draw, design a control that is unique to you. Use the shape tool to draw your triangles and to add a design to the background. It is important that this is different from your peers so that your controls don't get mistaken with others around the school! The control you design must be a rectangle, with two triangles with two numbers and two letters. You will need to make 10 of these, each with the numbers 01 to 10 in the top triangle. For the letters, come up with a quote that is 20 letters long and spell this quote out across your controls. Your quote might be something like 'OR IE NT EE RI NG IS TR IC KY. Here is an example, you can see that this is my first control, with the first two letters from my quote:



4. Make sure your 10 controls fit on either 1 or two A4 pages. Print your controls in colour, laminate them and cut them out.

5. On your map in your art book, draw a circle  around the area that each of your 10 controls are in. Make sure you choose areas where your orienteering control won't get in the way of children playing and a place where it won't be tampered with (the better you hide your control, the less likely this will happen). For example, if you were hiding a control in the yellow tunnel on the senior playground, you wouldn't stick it on the floor of the tunnel.

Remember to use a triangle for the start  and a double circle for the finish



6. Write a clue next to each of the control numbers on your map to help the orienteer find your control. An example of a clue could be 'tunnel, east end'.

7. Show your teacher your final map and printed controls.

8. Your teacher will then give you permission to photocopy your map in colour and laminate it.

9. Place your orienteering controls around school. Think about how you will secure these controls so they don't damage the surface they are on, but also so they stay there. You might hole punch your control and use cable ties to secure them around poles, or double sided tape to stick them to something.

10. Give your map to the teacher ready for orienteering around school next week!