

## Science Worksheet – Level 1-4 “Maps and Mapping”

You know what a map is. You can picture a map. Perhaps you can even see a map on the wall. In TWELVE words or less explain what a map is.

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NOW – look at your definition of “map”. Sticking strictly to your definition, list the things that a map would tell you about a place.

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|       |       |
|-------|-------|
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |

Can you think of any information about a place that might be important which you have not included in the list above? If so, note them here:

.....

|       |       |
|-------|-------|
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |

There are actually lots of different types of maps, each of which gives us different information about a place. Even the area where you live and go to school could be covered by different maps, each showing different information. **Here are some types of maps – write beside each what you think this type of map would show:**

|              |       |
|--------------|-------|
| Topographic  | ..... |
| Bathymetric  | ..... |
| Geophysical  | ..... |
| Geological   | ..... |
| Biodiversity | ..... |

The most common use of a map is probably to navigate from place to place – whether on a fold-out map or using a street directory. But it might also be useful to know things like what weather to expect and how many people live in a place. You can find this information for where you live by going to the **Australian Bureau of Meteorology** (for weather) at [www.bom.gov.au](http://www.bom.gov.au), and you can find information on population density from the **Department of Environment and Heritage** at [www.deh.gov.au](http://www.deh.gov.au)

All sorts of other maps can be had from these sources and from **Geoscience Australia** at [www.ga.gov.au](http://www.ga.gov.au). If you cannot access these sites you will find that any

good atlas will have different types of maps showing the physical (mountains, rivers) and the built (towns, cities, railways, roads).

From as many sources as you can find maps about the area where you live.

You can probably see why it takes a lot of maps – if you tried to put all the information onto one map it would be too confusing.

**Having researched the types of maps that are available, look again at your first description of what a map is. What can you now add to those twelve words to describe what maps can do?**

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Now imagine that the places on the maps – not just towns and streets but natural features – did not have names.

How would you be able to say a lot of things – location, population, climate, geology – about a place if you could not identify it by name?

You could, of course, give it's position by latitude and longitude. But that might be a bit inconvenient.

To prove it, here are some well known Australian town. Name them!

**(you can plot the North/South lines of longitude and the East/West lines of latitude on a map and where they intersect you'll find the answers)**

| <b>Longitude</b> | <b>Latitude</b> |       |
|------------------|-----------------|-------|
| 151°12'25"       | -33°52'12"      | ..... |
| 144°57'45"       | -37°49'00"      | ..... |
| 153°02'04        | -27°28'57"      | ..... |
| 138°35'57"       | -34°55'46"      | ..... |
| 147°19'00"       | -42°52'60"      | ..... |
| 147°10'26"       | -41°34'39"      | ..... |
| 130°85'42"       | -12°27'20"      | ..... |
| 149°07'54"       | -35°16'22"      | ..... |

Now you can easily work out which place is the further

- NORTH
- EAST
- SOUTH and
- WEST