

Google Maps as a GIS

GIS stands for Geographic Information System. A GIS can be used to "capture, store, manipulate, analyse, manage and present all types of geographical data" almost always on a base layer of a map of some kind.

In simple terms, it's using computing technology to present some form of data on some kind of map. Google has a variety of tools which can be used as a GIS.

Maps Engine Lite

This is a web based application that should allow basic GIS data presentation.

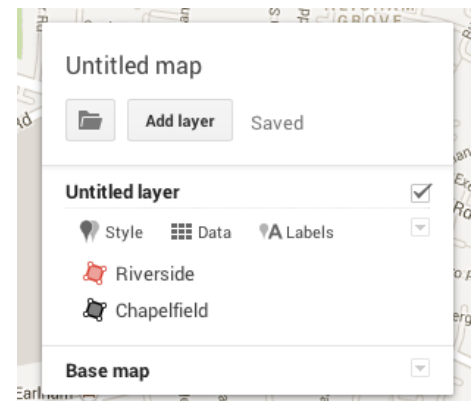
NB: As of July 2013 this is a Beta product – i.e. one that is still in an experimental phase and is being tested on general users. Stuff could easily change.

1. Log in to your Google account
2. Go to **mapsengine.google.com**
3. Click the **New map** button to create a new map
4. Navigate to where you want to place your data and zoom

There are a variety of things you can do now.

At the top left of the screen you can control what shows on the map at any time. You should probably:

- give your map a title – it will be saved as this title and you can share it with other people using it
- give the basic layer a title



You can use layers to show different bits of data at different times. This lets you turn off certain sets of data to allow you to concentrate on the other sets. There are some advantages to doing this – it's worth experimenting with

- the Base map drop down allows you to change the map that your data is going to sit on top of. You might want, for example, a satellite image as the base rather than a street style map. Simply click the drop down and change the base.

You probably want to ignore the Style, Data and Labels tabs for now. There are interesting things you can do with these, especially if you have lots of geolocated data in a spreadsheet. But, frankly, it's a bit of a chore...

Now add some stuff to your map.

Next to the basic information box is a set of icons.



- the hand simply lets you move around the map. That gets selected by default.
- the map pin icon lets you add a map pin to your map – simply click to drop it and then give your pin a title and write something about it. It would be nice if you could add a photo or a hyperlink or a chart or something to this. It looks like they're keeping this app quite Lite at present, so you can't.
- the line icon lets you draw a polygon (a straight sided shape) on the map. You can use this to mark an area – for example, an area which has been gentrified, an area of protected land or an area likely to be lost to coastal erosion.

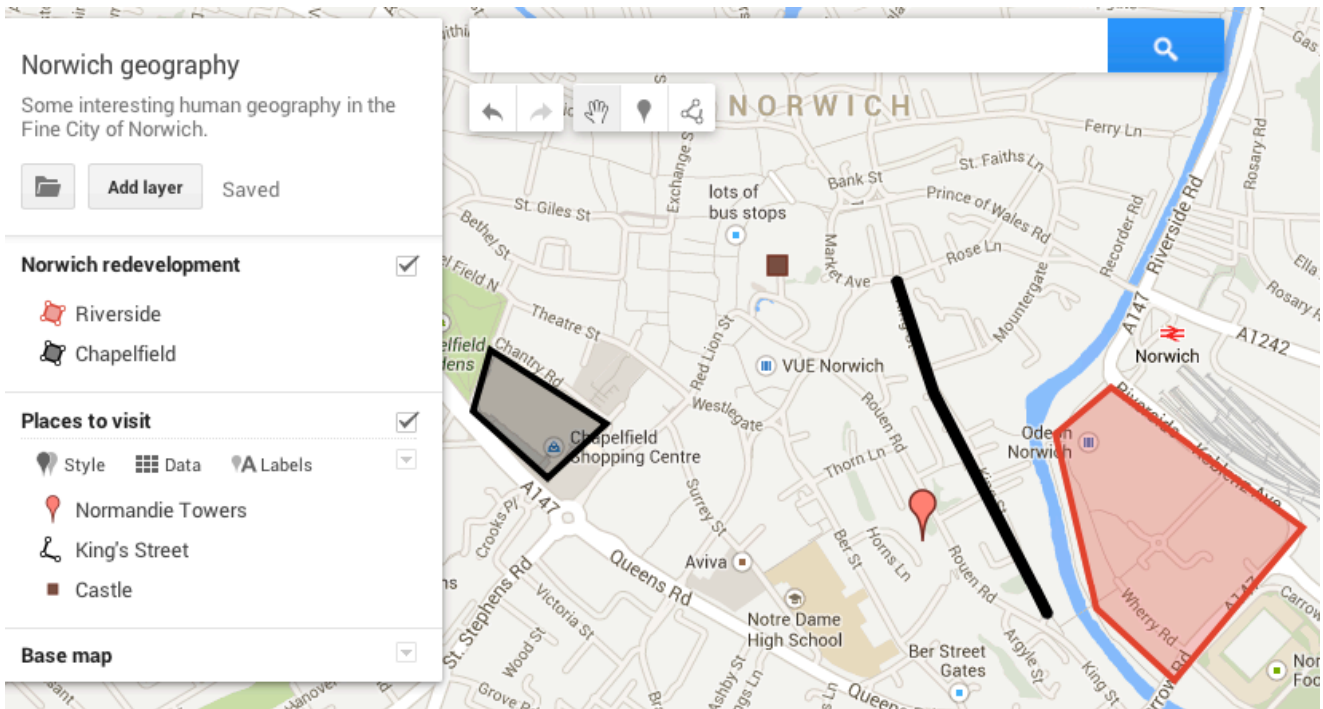
Polygons are formed by joining the shape up with the initial point you drop on the map

Lines can be drawn by double clicking to drop the line

Formatting

Once you have information on your map you can start to format it. If you mouseover the name of the pin, polygon or line in the information panel a diamond icon appears on the right. Click this and you can format your shape to change it's colour, fill it or make it transparent. This allows you to present information in interesting ways.

By using formatting and layers you can turn your map into an interactive one, presenting what you know about the geography of the area. On my map (see below) you can see that I've used two layers. This will allow me to turn off one layer to just concentrate on the other. The number of layers you need depends on the number and complexity of items you need to add to your map.



By unticking a layer I can hide that data from view easily.

The Label tab allows you to add text to the map as well. That's worth experimenting with to see if you want that extra level of information as well. You can turn labels on or off for each layer separately.

Sharing your map, once it's done, is a case of simply clicking on the Share button and working out who you want to share it with and whether you want them to be able to edit it. You can also embed it on a website if you click the Folder icon on the information panel.