1 a) Leicestershire is located near the centre of the map.

1 b) Google has a huge amount of data called geo-data. This data contains images and by using cutting edge technology the data is used to form maps.

1 c) While zooming in or out the data or the image shown is changed. It looks like a picture is zoomed in. After zooming in, some more information is shown on the screen or a new image is loaded after zooming in or out.

1 d) Satellite view shows the image data collected by satellites. Street view shows images collected by people or Google cars that collect street view images.

1 e) This is a complicated process. Google first calculates the shortest path using the shortest path algorithm from the users current location to the destination. This shortest path algorithm also takes into account the traffic at the various intersections that the user might face while travelling the path and tries to find the path that will take the least amount of time. Such data is stored in the google servers. All calculation is done in the google servers. The data is transferred to the user.

2 a) This website shows the map of the world and at each place which “HASHTAG” trend is trending.

2 b) Two things that I find interesting:

1. This uses twitter data from around the world to display the most common hashtags in each corner of the world.
2. This website has a history system and black mode.

2 c) whenever I want to see more features of this website, it prompts to register for accessing that feature and that registration fee is 25$. This is very annoying.

3 a) html, css, php, js might be used to create such a website.

3 b) The Googles zoom is smoother than the mentioned website. The website uses images while zooming, so when zoomed a new image needs to be loaded and that is why it is slow. I think Google does the same thing but uses transition animations while trying to zoom.

3 c) Google maps is a lot more detailed than the mentioned websites map. Google maps is used for a lot of reasons and thus more data is used in the website for more details and specificity. But the mentioned website is needed only for the information of where a particular earthquake occurred recently. So the details required are less.

4 a) The most flashiest website would be the datashine website.

4 b) traffic-wales shows the different traffic and the reason of such traffic in a particular area in the map. Datashine website shows the LQ (Location Quotient) of different areas by coloring the areas on the basis of a LQ scale. LQ describes how far from the national average (LQ = 1) the measure is. Data can be chosen on which factors to show the data such as population basics, origin & beliefs, health, housing etc.

4 c) The style and functionality both suit the purpose of both sites.

4 d) traffic wales includes a lot of old data. It would be better if it could provide real time traffic data. Also a notification system can be introduced of any accident or traffic in or around users current location.

5) All of the mentioned websites common feature is that they include a starting location and an ending location which is taken from the user. After taking input it uses a routing algorithm to find the minimum path between both the locations.

6) Probably the bus has a built in gps tracker in which the geo location is sent to a server. This location is then shown on the map.

7) Some interesting sites I found:

i) <https://www.openstreetmap.org/>

ii) <https://magic.defra.gov.uk/MagicMap.aspx>

MagicMap has a unique feature of drawing on the map and printing it. It also has a separate view in which it shows the larger portion of where we zoomed in.