 In the paragraph, provide an explanation of the data type(s) shown by the chart and the marks and channels used. In your explanation, please include whether marks are used as items/nodes or links.

Bubble and pie chart:

The first data type is a quantitative attribute representing the individual areas of the pie chart. This is a mark. The second data type is a quantitative attribute representing the size of the pie chart, this is a channel representing the size of the actual chart. The third and fourth attributes are quantitative attributes, that are channels representing the position of the pie chart on the graph.

Bump Chart:

One data type is categorical, determining the year for the data point, this is a channel representing the position on the chart. The second data type is categorical determining the starting rank of the point, in this graph 1-5 or A-E, this is a channel represented by vertical position as well as color. The next data type is categorical attribute and is a mark representing the rank over time. The next attribute is a link to represent the node changing over time which is a mark.

Mind Map:

One data type is categorical, determining the content of the individual bubbles, this is represented by a channel as the different color of the node determines which type of node it is, whether it is a theme, category, or idea. The next type is a link that represents the link between different nodes in the map. This is a line and therefore a mark.

Stacked Bar Chart:

A data type is the category along the x axis representing the “main” category of the data. The next data type is a category of the different sub categories in each bar of the bar chart. The third data type is quantitative attribute along the y axis representing the count or another value of the sub categories as well as the category as a whole. One channel is the position on the x axis representing the main categories A – D. The next channel is the different colors of the main bars to represent the sub categories. The next channel is the height of the individual bars as well as the sub categories of the bar.