

**Visualising and interpreting Data**

| **Session summary** | **Pupil context** |
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| This session aims to develop the pupil’s ability to research data and represent this in a suitable chart. The pupils will learn how data representation is used as an effective tool to communicate findings on social research.  | Suitable for KS3 pupils who have an understanding of different types of charts and graphs, and have some experience in creating their own. |
| **Session aims** | **Resources needed** | **Link to English curriculum** |
| * Discover relevant and up to date information about the LGBT+ community
* Develop skills in researching data and representing this data in a suitable chart
* Learn how data representation can be used as an effective tool to communicate findings
 | * Presentation
* Raw datasets
 | “Use language and properties precisely to analyse numbers … and statistics” |
| **Link to Welsh curriculum** | **Link to Scottish curriculum** | **Link to NI curriculum** |
| “Construct a wide range of graphs and diagrams to represent the data and reflect the importance of scale” | “I can display data in a clear way using a suitable scale, by choosing appropriately from an extended range of tables, charts, diagrams and graphs, making effective use of technology” | “Interpreting mathematics involves pupils reflectingon mathematical solutions or results, and interpretingthem in the context of a real-life problem or challenge” |
| **Preparation ahead of the session** |
| * You may need to let pupils know about School Diversity Week: you can find explainer slides in our resource library.
* Our intro slides contain information explaining the acronym LGBT+
* Pupils should have a good idea of how to draw different charts, e.g. bar chart, pie chart, scatter diagram.
* Make sure the pupils have access to graph paper, ruler, pencil and protractors.
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| **Timing** | **Activity** | **Suggestions for differentiation** |
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| **0-5** | **Introduction*** Introduce the session and its main objectives.
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| **5-15** | **Where does this data come from?*** Explain the context of the LGBT+ survey and other pieces of research to be referenced in the lesson.
 | Explanation of survey will need simplifying – you could give pupils a quick survey to show what it is. |
| **15-25** | **Choose your data!*** Ask the pupils to choose the information which they find most interesting from the data sets they have been given.
 | Question wording will need simplifying. |
| **25-30** | **How can you represent data?*** Ask pupils to match the names of the charts and graphs to the examples.
* Outline the importance of picking a suitable chart or graph for their data.
 | Select examples the pupils with familiar with – remove histogram, box plot, etc. |
| **30-40** | **Represent the data*** Pupils must represent their data in a suitable chart.
 | Data will require simplifying - for example leaving only the ‘total’ column on one of the tables. Table 4, ‘feeling comfortable in the UK’ may be the most appropriate choice. |
| **40-45** | **How has it helped?*** Ask pupils to explain to each other - in no more than a minute - as to how representing it in this way helped them understand it more easily.
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| **45-55** | **What should we do now?*** Pupils role-play a meeting with a person at Just Like Us. They need to use their data representation to conduct a meeting with their partner and advise them on what they should do in their programmes.
 | Give some examples of the kind of things a charity might to do help people, like supporting teachers to help their pupils, providing information and support services, and changing public opinion. |
| **55-60** | **What would you like to find out?*** Ask pupils one thing they would like to discover about the LGBT+ community which wasn’t represented in the data given today.
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