

Unit: Creating a Successful TV Show or Film Using Data

Target age: 11+

Topic 3: Collecting Data

Recommended Teaching hours: 1-3

Lesson Objective: Be able to understand where data comes from and the importance of scrutinising & organising data that we collect.

Lesson Overview & Outcomes (*Linked to Scottish curriculum for Excellence Numeracy & Mathematics and Technologies: experiences and outcomes – Third/Fourth level*)

This topic helps pupils understand the importance of collecting, and scrutinising data. They will be able to use given sources and the WWW to find relevant data for the project and organise it accordingly.

Numeracy & Mathematics: MNU 3-01a, MNU 3-03b, MNU 3-07a, MNU 3-20a, MTH 3-20b, MTH 3-21a, MNU 4-01a, MNU 4-03a, MNU 4-07a, MTH 4-07b, MNU 4-09b, MNU 4-20a, MTH 4-20b, MTH 4-21a

Technologies: TCH 3-01a, TCH 3-02a, TCH 3-03a, TCH 4-01a, TCH 4-02a, TCH 4-08a

Key words: Metadata, Data Source, Database, Sources Table, Accuracy/validity, Reliability, Completeness, Precision, Timeliness, Integrity, Confidentiality/Privacy

Suggested software/Resources: Internet Web Browser (Google Chrome, Internet Explorer etc), Word processing package, Spreadsheet software. See “Tools to support delivery” section for more information.

Please refer to project overview and medium term plan for additional support and guidance

Lesson Structure:

(Based on 1 hour lesson – you may need more time to allow adequate data collection)

Introduction:

Time (minutes)	Activities	Challenge/Support (Differentiation)	Assessment Strategies & Outcomes
5	3.1 Slide 2: Recap and refresh. Recap what you have done so far and ensure pupils know what the aims of the project are. Ask pupils to provide teacher with as many “things” we are looking to gather data on. Once you have enough, explain that many of these can be explained as metadata – data/information about data, e.g. the genre, rating, name of a film	Put definition up on board with examples so that students can see what this looks like	Directed questioning to assess student engagement with the project thus far

Main Content:

Time	Activities	Challenge/Support (Differentiation)	Assessment Strategies & Outcomes
20	3.2 Slide 3: Explain to pupils that they can use the dataset alongside their own research. We may need to search for other types of data using search engines. Before you ask students to search the World Wide Web make sure they appreciate how it works - https://www.youtube.com/watch?v=BNHR6IQJGZs . Ask them to consider how this information could be stored Open up a discussion about the best possible search terms and document them – essentially they are looking for films/TV shows that have been/are successful and why	Challenge 1: Explain that they can look to find their own meta data and data sources Challenge 2: When considering bias groups should also look to consider the following: <ul style="list-style-type: none">▶ Accuracy/validity▶ Reliability▶ Completeness▶ Precision▶ Timeliness▶ Integrity▶ Privacy	At this point students should be able to produce a completed portfolio of the most successful films/shows based on a number of chosen criteria. The level of detail will vary depending on ability and depth of research
30	3.3 Slide 4: Explain that the likes of IMDb are huge databases that contain metadata about almost every film and show we have ever seen – ask them to consider the benefit of using these. Provide them with the data sources help sheet and give them time to browse them Slides 5-6: Show students the sources table and ask them to begin to add their data to it and store what they collect suitably, as they progress. Ask them to		Pupils can search for and store data effectively. They will be able to search the WWW independently for suitable sources and

	<p>remember their project roles from last lesson. Pupils can collect and store their data whatever way is suitable, but it must be organised in way that will be easy to use during their analysis. Time should be taken to organise the data, and they may create more than one table/file – Show example on slide 6. Pupils who are just using the dataset need to consider the appropriate ways to sort and filter their data ready for analysis.</p> <p>3.4 Slide 7: Before they start searching for data, explain to them the importance of considering bias and reliability. For example, qualitative data in the form of a critic’s review – or quantitative data as a rating out of 10 on IMDb – they are an opinion – See overview for support</p> <p>Ideally this lesson should take place over two lessons to ensure pupils have enough time to collect enough data</p>		<p>store them effectively in a sources table</p> <p>They will be aware of the importance of considering data bias & reliability</p>
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Concluding the lesson:

Time	Activities	Challenge/Support (Differentiation)	Assessment Strategies & Outcomes
5	Slide 8: Ask pupils list the data they have yet to complete and continue their research as a homework task. Share some good examples so far	This entire activity is differentiated by outcome. The level of detail in the research and data collection will vary	Targeted questioning to identify work so far, observe data collection and sources tables as you bring the lesson to a close

Homework:

Ask pupils to continue their research and data collection

Evaluation:

- ▶ What went well in the lesson?
- ▶ What needs addressing/revisiting?
- ▶ What might you do differently for next time?