

YEAR 4

	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Data and Information – Data logging	<p>The three Prime ELGS of Communication and Language, PSED and Physical Development provide the foundations of which all other learning is built upon.</p> <p>No Specific ELG links.</p>	To be introduced to data and information and understand that labelling, grouping and searching are important aspects of data .	To begin to understand what the term ' data ' means and how data can be collected in the form of a tally chart .	To develop understanding of what a ' branching database ' is and how to create one.	To consider how and why data is collected over time. To collect and access data collated over a period of time, looking at data points, sets and logging intervals to review and analyse .	To look at how a flat-file database can be used to organise data in records . To create graphs and charts from data to help solve problems.	To organise data in columns and rows to create their own data set on a spreadsheet . To understand the importance of formatting data to support calculations . To learn how to apply formulas to a data set to produce calculated data .

COMPOSITES

Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
 Select, use, and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems, and content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information

COMPONENTS

	1	2	3	4	5	6	End Point
	To explain that data gathered over time can be used to answer questions	To use a digital device to collect data automatically	To explain that a data logger collects 'data points' from sensors over time	To recognise how a computer can help us analyse data	To identify the data needed to answer questions	To use data from sensors to answer questions	This unit progresses children's knowledge and understanding of data and how it can be collected over time to answer questions. Specifically, it builds on the concept of answering questions with data which is first introduced in the KS1 data and information units. The unit also introduces the idea of automatic data collection. Children are also introduced to data in tables and graphs, knowledge they will build on in the Year 5 unit

PROGRESSIVE VOCABULARY	data, table, layout	input device, sensor, data logger	data logger, logging, data point, interval	analyse, data set, import, export	data, data logger, logged, collection	analyse, review, conclusion	Children will be able to understand, articulate and use the vocabulary,
CURRICULUM EXPERIENCES					Children to choose their own question then use a data logger to help find the answers		
END POINT	Children will consider what data can be collected and how it is collected. They will think about data being collected over time. Children will also think about questions that can and can't be answered using available data, and reflect on the importance of collecting the right data to answer questions.	Children will build on the idea of collecting data over time, and be introduced to the idea of collecting data automatically using computers such as data loggers. They will also be introduced to the concept that computers can capture data from the physical world using input devices called 'sensors'. Children will establish that sensors can be connected to data loggers, which can automatically	Children will explore how data loggers work. They will record data at set moments in time and draw parallels with the data points that a data logger captures at regular intervals. Children will use data loggers away from a computer, then they will connect the loggers to a computer and download the data.	Children will open an existing data file and use software to find out key information. They will analyse a data file which is a five-hour log of hot water cooling to room temperature.	Children will think about questions that can be answered using collected data. They will choose a question to focus on, and then plan the data logging process that they need to complete. After children have completed their plan, they will set up the data loggers to check that their plan will work. This setting up is designed to ensure that the data collection will work, and that children will have data	Children will access and review the data that they have collected using a data logger. They will then use the data collected to answer the question that they selected in the previous lesson. Children will also reflect on the benefits of using a data logger.	Children will access and review the data that they have collected using a data logger. They will then use the data collected to answer the question that they selected in the previous lesson. Children will also reflect on the benefits of using a data logger.

		collect data while not attached to a computer.			to use in the next lesson.		
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BIRCHINGTON



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