

Spring Term 1, Year 4, Computing, Investigating Weather

Subject specific Vocabulary		Images/Diagrams/Maps	Important Knowledge
Algorithm	A sequence of instructions which, when followed solve a problem		To know that computers can use different forms of input to sense the world around them so that they can record and respond to data ('sensor data'). To know that a weather machine is an automated machine that respond to sensor data. To understand that weather forecasters use specific language, expression and pre-prepared scripts to help create weather forecast films.
Automated machine	Works without the need for human interaction, after being programmed to carry out a specific job		
Calculate	To use mathematics to discover, prove or solve something		
Climate	The weather conditions you would normally expect in a location		
Device	Equipment created for a certain purpose or job		
Forecast	To predict what might happen or occur as the result of something in the future		
Predict	To make an educated guess		
Record	To log information in the present	Writing opportunities/ Enrichment opportunities	
Sensor	A tool or device that is designed to monitor, detect and respond to changes for a specific purpose	Science: Link weather data to topics like the water cycle, climate, and environmental science. Math: Practice using averages, ranges, and comparing data sets. English: Write weather reports or explanations of trends using clear language. Geography: Compare local weather with data from other regions or countries.	

Presentation	Assessment		
1	To log data taken from online sources in a spreadsheet.	Searching the web efficiently to find temperatures of different cities and recording this accurately. Appreciating the importance of data in weather forecasting	Recording accurate data about temperatures around the world and sorting the information in their spreadsheet
2	To design a weather station.	Designing a weather station which gathers and records sensor data, explaining how it works and the units of measurement it would use	Explaining how their weather station could measure sunshine, including the use of a standard unit of measurement
3	To design an automated machine to respond to sensor data.	Designing an automated machine which uses selection to respond to sensor data and using keywords to effectively search for information on the Internet	Writing an algorithm to explain how their automated device would work including what would happen after dangerous or extreme weather had passed
4	To understand how weather forecasts are made.	Searching for and recording weather forecast information in a spreadsheet and explaining how this data is collected	Explaining in detail how weather is predicted and justifying their opinion on which forecasts might be the most accurate