

# Year 5 Violet Spring 1: How Do Secret Agents Send Messages?

School Value: Empathy - we can reflect on our actions and behaviour choices and always want to do better

Topic Sticky Knowledge	
Science	The word 'material' describes what things are made from. A material's state can be solid, liquid or gas. Materials are made of lots of little particles and how they are arranged determine their state.
	Materials have properties that make them useful for certain jobs, such as being magnetic, flexible, waterproof, etc.
	Materials have more than one property and can be natural or man-made. Properties can include the hardness, whether it conducts electricity, the shininess, or whether it is magnetic.
	Materials which are good thermal conductors allow heat to move through them easily. Thermal conductors are used to make items that require heat to travel through them easily, such as a saucepan which requires heat to travel through to cook food.
	Thermal insulators do not let heat travel through them easily. Examples of thermal insulators include woollen clothes and flasks for hot drinks.
	Electrical conductors allow electricity to pass through them easily while electrical insulators do not.
	Electrical insulators have a high resistance which means that it is hard for electricity to pass through these objects.
	Materials that are encountered in the world around us. show signs of wear and tear over time. This may be due to weathering or regular use (or abuse). Organic materials, for example wood, will decompose once the surface seal or varnish is broken, whereas some plastics start to break down and can become brittle.
History	Alan Turing was a British mathematician. He made major contributions to the fields of mathematics, computer science, and artificial intelligence.
	Alan Turing worked for the British government during World War II, when he succeeded in breaking the secret code Germany used to communicate using the enigma machine.
Art	Lino printing is a form of fine art printmaking where the printing plate is cut into lino. It is then inked, and a piece of paper placed over it. Then pressure is applied by hand to transfer the ink to the paper, resulting in a linocut print.
	Positive space is the area in a work of art that are the subjects, or areas of interest. Negative space is the area around the subjects, or areas of interest.

Topic Vocabulary		
Science	Soluble	able to be dissolved.
	Insoluble	Cannot be dissolved, especially in water.
	Dissolves	when a substance is mixed with a liquid
	Solution	Made when one substance dissolves into another
	Conductor	a substance that heat or electricity can pass through or along
	Thermal	relating to or caused by heat or by changes in temperature
	Magnetic	Capable of being magnetised or attracted by a magnet.
	Transparency	Transparency is the quality of being easily seen through.
History	Legacy	Something that is handed down from one period of time to another period of time.
	Significance	Evaluating someone or something's impact on life in the past or life today.
	Impact	Change that is created by an event or person. This can be a long lasting impact, a small impact, or no impact at all.
Art	Technique	A way of carrying out a particular task
	Relief Printing	When you carve into a printing block that you then use to press onto paper and make a print.
	Motif	A recurring pattern that repeats
	Brayer/Roller	Printmaking tools Used to thinly apply ink or paint onto a printing surface.

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Stand-Alone Sticky Knowledge	
RE	There are 5 pillars that are central to Muslim life. Shahadah -this is a statement which is repeated many times a day 'There is one God Allah and Muhammad is his prophet', this is said first thing in the morning, last thing at night and during each prayer.
	Salat - prayer, 5 times a day, these prayers show that life revolves around God
	Zakat - Giving 2.5% yearly savings to charity, this is usually organised through the local mosque. Zakat is seen as a duty.
	Sawm - Fasting –During the month of Ramadan many Muslims will fast during the hours of daylight, this helps to develop self-discipline. It is challenging but this is deliberate as Muslims need to understand what it is like to be poor and hungry.
	Hajj – Pilgrimage to Makkah in Saudi Arabia once in a lifetime – this is to follow in the footsteps of the prophet Muhammad and remember some key events in the history of Islam.
	Muslims believe Allah wants commitment from them. Allah has given them everything and expects His followers to live their lives in a way that is fit for Him.
Music	A pop ballad is a gentle love song, full of emotion. They can sometimes have a rock backing, which then becomes a power ballad.
	The style indicators of a pop ballad are: slow and gentle backing; instruments like strings, piano and acoustic guitar; subtle drums and bass; lyrics about love or celebrating love, and the mood of the words and music match each other.
Computing	Cryptography is the study of the hidden or secret transmission of messages and of how such encrypted messages can be decrypted by others.
	In traditional cryptography, encryption relies on an agreed system and a secret key known only to the transmitter and the recipient of the message. The transmitter encrypts the message using the system and the key, transmits the encrypted message to their recipient who decrypts it with the key using the agreed system.
	Anyone eavesdropping on a message cannot decrypt the message as they don't know the key, although it's possible that they could guess this, using clues or just by trying all the possible keys.

Stand-Alone Vocabulary		
RE	Akhirah	Life after death
	Five Pillars	The framework of the Muslim life, they are the testimony of prayer, faith, giving, fasting and pilgrimage.
	Qu'ran	The holy book of Islam revealed to the prophet Muhammad
	Ramadan	Month of fasting
Music	Ballad	A gentle love song.
	Interlude	A passage of music played between the main themes
	Tag Ending	Usually a short ending, tagged onto the main part of the song.
Computing	Cipher	An agreed scheme (algorithm) for encrypting or decrypting a message
	Cryptography	The science of keeping communication and information secret
	Encode	To change the form of a message into an agreed code.
	Semaphore	A code for converting letters and numbers into different positions of two flags
	Morse Code	A simple code for converting letters and numbers into patterns of short and long electrical pulses
French	Je vais à l'école à huit heures et demie	I go to school at half past eight
	À droite	On the right
	À gauche	On the left
	Tout droite	Straight ahead