

Year 6 Gold Autumn 2: Can A Lens Create Art?

School value: Resilience – we persevere, if something is worth doing, we do it well!

Topic Sticky Knowledge	
Science	The shape of a shadow is defined by the shape of the object causing it. If you move the object creating a shadow towards the light source, the shadow gets bigger. If you move the object towards the screen then the shadow gets smaller. In both cases the shape of the shadow remains the same.
	A pinhole camera can work without a lens because the aperture (the hole to let the light in) is small enough to restrict the amount of light let in. The image on the screen is upside down (inverted).
	When light travels from one medium to another its speed changes. Unless the light travels into the object at right angles to the surface there is also a change in direction. This is called refraction and is why an object half in water appears to be bent and why when we view things underwater they are not where they appear to be.
	White light that comes from the sun and other sources, such as a torch, is made up of a number of colours (red, orange, yellow, green, blue, indigo, violet) but we cannot see these because they are mixed together. The light can be split into the separate colours with a prism (dispersion).
	White light can be split into its constituent colours in other ways, including using water, and this is how a rainbow is formed. The white light is split by the water drop (rain or mist) but bounces back in the direction it came from, so you can only see a rainbow if the sun is behind you and the rain/ mist is in front of you.
	Some people think that the moon is a light source as it can seem that way when you look at it. Actually, it reflects light from the sun.
D&T	A CAM changes the input motion, which is usually rotary motion, to a reciprocating motion of the follower.
	A cam mechanism has two parts: cam and follower.
Art	When using the rule of thirds in photography, the image is divided into thirds using two horizontal lines and two vertical lines. To create an eye catching composition, the subject matter is positioned according to the lines. For example, when the horizon is photographed near to the top third line, the focus for the viewer is drawn to the ground; when the horizon is near to the bottom third line, the sky is the focal point of the image.
	Shooting the subject matter directly from above or high up can give a exposed or vulnerable feel to the image or subject matter. Shooting the subject matter from below or low down can make the subject matter look powerful and very dominant.

Topic Vocabulary		
Science	Light source	An object that makes its own light. Light is a form of energy that travels in waves.
	Reflection	Reflection is when light bounces off a surface, changing the direction of a ray of light.
	Refraction	This is when light bends as it passes from one medium to another. E.g. Light bends when it moves from air into water.
	Visible spectrum	Light that is visible to the human eye. It is made up of a colour spectrum.
	Shadow	An area of darkness where light has been blocked.
Design & Technology	Oscillating motion	Moving to and fro around a pivot point (lever).
	Rotary motion	Movement that goes round
	Reciprocating motion	Backwards and forwards movement in a straight line (slider).
	Cam	A mechanism that changes one sort of movement to another.
	Follower	The device that follows the movement of the cam.
Art	Simplicity	Having a clear, simple background can make the subject of your photo- graph much more impactful.
	Composition	How the elements or subject matter is arranged in the image
	Framing	Framing the subject matter helps to draw attention to the main focus of the photography
	Silhouette	Dark shape and outline of a subject matter against a brighter light.

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Stand-Alone Sticky Knowledge	
RE	Christians believe in one God and they believe that Jesus Christ was his son who died in order to bring humans salvation from sin.
	A key belief of all Christians is the belief in the Trinity – Father, Son and Holy Spirit, who were all present at the Creation of the world and who all take on different roles.
	Interpretations of the Nativity are different in the Bible. St Matthew’s account of The Christmas Story focuses on power. St Luke’s account of The Christmas Story focuses on the poor and vulnerable.
	Christmas is celebrated in different ways around the world. In Sweden, it is celebrated on 13th December as Saint Lucia’s Day. It is to honour a girl who was put to death for her Christian beliefs in Roman times (when people were expected to worship Roman Gods). Saint Lucia was caught feeding Christians, who were hiding in caves.
	Christians all believe that the Christmas Story is significant. However, some Christians view the story in a metaphorical way while other Christians believe the story is literally true.
Music	Bacharach Anorakl has a Latin American groove.
	Blues is a style of music originating in the deep south of America and is considered an ancestor of Jazz.
Computing	Creative Commons is a licensing scheme where the creator of an original work allows others to use it without seeking further permission, subject to a number of agreed conditions.
	Digital video combines the capture of images with audio. Images are captured as two-dimensional arrays of red, green and blue colour values many times a second.

Stand-Alone Vocabulary		
RE	Incarnation	God in human form
	Salvation	The healing of a broken relationship between the people and God.
	Carols	Songs about Christmas and the birth of Jesus.
	Trinity	Three persons in one God: Father, Son and Holy Spirit
	Gospels	The teachings of Jesus and the apostles.
Music	Timbre	The quality and the character of the sound.
	Riff	A short, repeated phrase, often played on a lead instrument.
	Improvise	To make up a tune and play it on the spot
Computing	Rough cut	Stage of video production in which scenes and shots are assembled in the correct sequence but without the attention to detail needed in the final cut
	Final cut	Stage of video production in which the footage is in its finished form in the editing software.
	Rushes	Unedited footage from a video recording.
	Storyboard	Planning document for video or animation in which each scene, or sometimes shot, is drawn
French	L’Europe	Europe
	L’Afrique	Africa
	Ou est...?	Where is...?
	Le matin/ l’apres-midi	The morning /The afternoon