



Invention

Year 4 *SPRING 1* Cycle A

Will inventions lead to a better future?

Values [GRATITUDE](#) | [EMPATHY](#) | [COURAGE](#) | [RESPECT](#)

Overview Through studying future technologies and the historical comparison of the impact of technologies on the world, children will consider how problems have been solved in ingenious ways by. They will question the benefits and costs of technologies and how these impact on human lives and relationships. Using design principles, children will seek out to find their own problems that they would like to offer a solution to. In small groups, children will go through the design process of researching, planning, creating and evaluating a product. Children will learn about electrical circuits and may integrate use of these into their designs. Children will write instructions about how to make or how to use their products and techniques of persuasive writing in order to market and publicise their idea to a wider audience.

Engagement Cambridge Science Centre and Technology Museum day where children will have a hands-on experience of using inventions, considering their impact and design.

Celebration In groups, children will present a presentation to pitch their ideas in an assembly with judges asking tough questions. Groups will need to persuade the audience that their product is worthy to be made. Children's product designs and creations will be displayed on the class blog.

Curriculum Spotlight

Focus Texts: Quiet!
How to Wash A Woolly Mammoth

Place & Time

Geography

History ▲ HKS2.5c

[Citizenship & Ethics](#)

PSHE ★: Jigsaw - Dreams and Goals

[Arts & Creativities](#)

Art ★: Drawing

Music ★: Musicianship

D&T ★: DTKS2.3a, 3b, 3c, DTKS2.4c

[Physical & Emotional Health](#)

PE ★: Swimming and Games

[Faith & Belief](#)

RE ★: Judaism

[Language, Literacy and Oracy](#)

Writing ★:

[Science & Technology](#)

Science ★: SY4.5a, 5b, 5c, 5d, 5e

Computing ▲: CKS2.1e*

Habits of Mind

Beautiful and mindful art and design outcome (through a re-drafting process of puppet creations), Autonomous, Reciprocal and Reflective learning.

Oracy & Dialogue

Oracy Skills - Physical: fluency and pace, tonal variation, clarity of pronunciation, voice projection. **Cognitive:** Content, reasoning, audience awareness. **Linguistic:** rhetorical techniques. **Social and Emotional:** working with others, confidence in speaking.

Playful Enquiry

Functional and symbolic play.

Learning Street

Cambridge Science Centre exhibits, Vintage computer hire from Centre for Computing History

Topic Display

Inventions/Instructions

Home Learning Project

Preparing product pitch presentation

Visitors

ARM, Sinclair, Cambridge Tech companies, Cambridge Science Centre

Educational Visits / Enrichment Day

Centre for Computing History

Subject		Learning Journey					
		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Arts & Creativities	Art	★	★	★	★	★	★
	Design & Technology	DTKS2.3a Investigate and analyse a range of existing products		DTKS2.3b Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.		DTKS2.3c Understand how key events and individuals in design and technology have helped shape the world.	
	Music	★	★	★	★	★	★
Language, Literacy & Oracy	Key texts	Quiet!	Shakespeare Week	How to Wash a Woolly Mammoth			
	Writing	Performance Poetry	Curriculum Enrichment	Instructions		Persuasive Writing	
	Spelling	Endings which sound like /jən/, -sion	Endings which sound like /jən/, spelt -ssion,	Endings which sound like /jən/, spelt -cian.	Words with the /k/ sound spelt ch (Greek in origin).	Words with the /j/ sound spelt ch (mostly French in origin)	Words ending with the /g/ sound spelt - gue
	Grammar	Expanded noun phrases	Curriculum Enrichment	Prepositions	Adverbs	Powerful adjectives	Commands, statements and subordinate clauses with comma
Mathematics	Maths	Multiplication and Division	Multiplication and Division	Multiplication and Division	Multiplication and Division	Multiplication and Division	Measurement (Time)
Science & Technology	Science	SY4.5a Identify common appliances that run on electricity		SY4.5b Construct a series of electrical circuits, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.	SY4.5c Identify whether or not a lamp will light in a simple series circuit based on whether or not the lamp is part of a complete loop with a battery.		SY4.5d Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.

	Computing	CKS2.1e Use search technologies effectively, appreciate how results are selected and ranked and discerning in digital content.					
Place & Time	Geography						
	History		HKS2.5c A study of an aspect of history or a site dating from a period beyond 1066 that is significant in the locality (e.g. local history study of computing in Cambridge).				
Physical & Emotional Health	PE	Swimming Games- Invasion Games	Swimming Games- Invasion Games	Swimming Games- Invasion Games	Swimming Games- Invasion Games	Swimming Games- Invasion Games	Swimming Games- Invasion Games
Citizenship & Ethics	PSHE	Hopes and Dreams	Broken Dreams	Overcoming Disappointment	Creating New Dreams	Achieving Goals	We Did It!
	Philosophy for Children	★	★	★	★	★	★
Faith & Belief	RE	How important is it for Jewish people to do what God asks them to do?	Food	Kashrut	Passover	Seder Meal	Rights of the Child