









Investigating changes in technology: The past in the present

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Assessment description	Category
Children compare sources from the past and the present to identify ways that changes in technology have shaped daily lives. Children use guided research to develop a historical narrative about the past.	Multimodal
	Technique
	Guided research
Context for assessment	Alignment
Technology used at different times in history provides clues about people's lives at the time. Technology objects are primary sources for learning how technological developments have changed and had an impact on people's lives over time. Children inquire about how objects from the past have changed and developed over time. They compare similar objects from the past and the present to describe how technology has influenced the ways people have lived, worked and played over time.	<i>Australian Curriculum v4.0</i> , www.australiancurriculum.edu.au , ACARA — Australian Curriculum, Assessment and Reporting Authority
	Connections
	This assessment can be used with the QSA Australian Curriculum resource titled Year 2 unit overview — History exemplar (Investigating changes to technology) , available at: www.qsa.qld.edu.au/yr2-history-resources.html .
	Definitions
	Historical narrative: A story that compares the past with the present to determine change. This historical narrative will be supported with information using multimodal forms of communication (original sources, graphic, written or digital technologies). Guided research: In guided research teachers and children collaborate to gather and record information.
In this assessment	
Teacher guidelines	
Student booklet	
Task-specific standard: Continua	
Task-specific standard: Matrix	
Teacher resource: Technology objects from the past	
Teacher resource: Changing technologies	
Assessment resource: Historical inquiry questions	
Assessment resource: Question starter grid	

Teacher guidelines

Identify curriculum

Content descriptions to be taught	
Historical Knowledge and Understanding	Historical Skills
<p>The Past in the Present The impact of changing technology on people's lives (at home and in the ways they worked, travelled, communicated, and played in the past) ACHHK046</p>	<p>Chronology, terms and concepts</p> <ul style="list-style-type: none"> Distinguish between the past, present and future ACHHS048 <p>Historical questions and research</p> <ul style="list-style-type: none"> Pose questions about the past using sources provided ACHHS049 <p>Analysis and use of sources</p> <ul style="list-style-type: none"> Explore a range of sources about the past ACHHS050 Identify and compare features of objects from the past and present ACHHS051 <p>Explanation and communication</p> <ul style="list-style-type: none"> Develop a narrative about the past ACHHS053 Use a range of communication forms (oral, graphic, written, role play) and digital technologies ACHHS054
General capabilities and cross-curriculum priorities	
<p> Literacy</p> <p> Numeracy</p> <p> ICT competence</p> <p> Critical and creative thinking</p> <p> Intercultural understanding</p> <p> Personal and social capability</p> <p> Aboriginal and Torres Strait Islander histories and cultures</p> <p> Asia and Australia's engagement with Asia</p>	
Achievement standard	
<p>By the end of Year 2, students analyse aspects of daily life to identify how some have changed over recent time while others have remained the same. They describe a person, site or event of significance in the local community.</p> <p>Students sequence events in order, using a range of terms related to time. They pose questions about the past and use sources provided (physical, visual, oral) to answer these questions. They compare objects from the past and present. Students develop a narrative about the past using a range of texts.</p>	
<p>Source: ACARA, The Australian Curriculum v 4.0, www.australiancurriculum.edu.au</p>	

Sequence learning

Suggested learning experiences

This assessment leads on from the learning experiences outlined in the QSA's Year 2 History unit overview. The knowledge, understanding and skills developed in the exemplar unit will prepare students to engage in this assessment:

- See unit overview — History exemplar (Investigating changes to technology), www.qsa.qld.edu.au/13643.html#overview

Additional teaching and learning experiences to support this assessment

The teaching and learning experiences below develop the context specific resources of the assessment.

- Make classroom collections of technology objects from the past, particularly sets that show changes over time. It is important that children handle and describe the attributes of real objects where possible. Photographs and other visual representations are always a useful source. *Assessment resources: Technology objects from the past and Changing technologies.*
- Provide explicit modelling of the research process, and multiple opportunities for children to practise inquiring about technology objects of the past and present.
- Read a story that focuses on the passing of time, such as *When Frank was Four*.
- Build a class collection of vocabulary to:
 - describe attributes of objects and compare their use, construction and age, using terms such as “features”, “materials” and “functions”
 - denote time and relative age of objects to position stories in the past.
- Build a collection of questions suitable for historical inquiry (see *Assessment resource: Historical inquiry questions* for a starting set or *Assessment resource: Question starter grid*).
- Practise interviewing peers about objects to gain experience in posing relevant questions.
- Explain the nature of the historical inquiry that children will be engaged in, emphasising that objects will be analysed to find what they can tell about the past and changes over time. Talk about how the investigation of objects would be different if it was being done in Science or Technology.
- Talk about the various technologies being used in the classroom such as pencils, electric lights, glass windows, phone, and whiteboard. Encourage children to discuss what might have come before, and to predict what might be invented in the future to replace them.
- Look at museum-style exhibits and discuss their information labels. Practise writing brief object labels with key facts about objects such as “My favourite toy” or “The most interesting thing I found in the playground.”
- Visit the My Place website (see Resources) and discuss how objects have been used by the children at different times in history. Talk about the sequence of events and how they signal to the passing of time in personal stories.

Adjustments for needs of learners

Section 6 of the *Disability Standards for Education* (The Standards for Curriculum Development, Accreditation and Delivery) states that education providers, including class teachers, must take reasonable steps to ensure a course/program is designed to allow any child to participate and experience success in learning.

The *Disability Standards for Education 2005* (Cwlth) is available from www.ag.gov.au.

Resources

- Queensland Museum Loans — objects and media kits:
www.qm.qld.gov.au/Learning+Resources/QM+Loans
- Learning resources about inventions and object analysis, Queensland Museum,
www.qm.qld.gov.au/Learning+Resources/Resources (enter “Three-step object analysis” or “Inventions” in the Search box)
- My Place, ABC3 online, Australian children’s stories 1788–present:
www.abc.net.au/abc3/myplace

Develop assessment

Implementing	
Preparing for the assessment	
<p>Child's role</p> <ul style="list-style-type: none"> Group objects with similar features together. Talk about the objects in the class museum with a particular focus on the links between objects with similar uses across different time periods. Sequence objects to show the passing of time. 	<p>Teacher role</p> <ul style="list-style-type: none"> At this level the achievement standard asks children to examine provided sources. See <i>Assessment resource: Technology objects from the past</i> for suggested objects to use as sources in this assessment. While the focus on real objects is preferred, <i>Assessment resource: Changing technologies</i> provides a selection of themed photos suitable for discussion about changes in technology over time and can be used as sources in the museum created for the classroom.
Section 1. Posing questions	
<p>Child's role</p> <ul style="list-style-type: none"> Select one object from the class museum. Develop a set of questions that will help you to find out about its history. Use the object and other sources (e.g. an older person) to find out about the object's design and function, and changes in technology over time. 	<p>Teacher role</p> <ul style="list-style-type: none"> Guide children in selecting an object that is a relevant example of technology that has changed over time. Support posing and selecting a set of questions relevant to each chosen object. Review the questions before children move on to finding answers. Provide relevant support and resources (which may include older people to talk with about the objects) to guide children as they engage in the inquiry. See <i>Assessment resource: Historical inquiry questions</i> for examples that children could select from or adapt. See <i>Assessment resource: Question starter grid</i> to assist children posing their own questions.
Section 2. Comparing questions	
<p>Child's role</p> <ul style="list-style-type: none"> Take the object described in Section 1 and find a newer or older object with a similar use. Use the Venn Diagram to compare features, functions and uses of the objects in terms of design, materials and use in daily life, e.g. work and play. 	<p>Teacher role</p> <ul style="list-style-type: none"> Support children in selecting a relevant second object to compare features, functions and uses of the objects in daily life using the Venn Diagram as an organiser.
Section 3. Answering questions	
<p>Child's role</p> <ul style="list-style-type: none"> Use provided sources and other sources such as interviews with adults to answer questions about the chosen objects. Record answers in the table. 	<p>Teacher role</p> <ul style="list-style-type: none"> Guide children to identify sources to respond to the questions. Use prompts to support children to record responses in the table provided.

Section 4. Developing a presentation



Child's role

- Plan and rehearse a presentation of the historical findings about the two objects, how they have changed, and how they may have impacted on people's lives.
- Give feedback about another person's presentation to help them improve it.
- Present a spoken/signed historical narrative (retell) that uses technology objects to explain how changes in technology have impacted on people's lives. The presentation may also include supporting information using multimodal forms of communication (original sources, graphic, written or digital technologies).
- Look back on the inquiry and use the sentence starters to discuss or record thoughts about learning progress.

Teacher role

- Explain appropriate ways to record and give feedback using the template. During presentation the child completes the checklist to provide feedback for improvement:

Checklist

-  Some more research might be needed.
-  It was clear to understand.

Two stars and a wish



- The child describes two positive features of a work before suggesting one way it could have been improved.
- Organise an appropriate setting and occasion for children to make their presentations.
- Facilitate an opportunity for children to engage in individual or collaborative reflection sessions using the reflection suggestion in Section 4.

Make judgments

The following table identifies the valued features of this assessment. It makes explicit the demonstrations of understandings and skills as identified in the Australian Curriculum Achievement Standard and the Queensland Standards Elaborations for History.

A continua and matrix model of the Task-specific standards is provided for this assessment using the same valued features. Each model of a task-specific standard uses task-specific descriptors to identify the discernable differences in student work for A–E standards.

Dimensions	Valued features		Task-specific standards
Understanding	Historical Knowledge and Understanding		The Past in the Present Uses objects from the past and the present to identify the impact of changing technology in people’s lives. Chronology, terms and concepts Distinguishes between past and present using historical concepts.
Skills	Historical Skills	Questioning and researching	Historical questions and research Poses questions to learn how technology has changed over time.
		Analysing and interpreting	Analysis and use of sources Explores sources to analyse technology from the past and the present.
		Communicating	Explanation and communication Explains and communicates historical ideas about how technology has changed over time.

Use feedback

Feedback to students	Evaluate the information gathered from the assessment to inform teaching and learning strategies. Focus feedback on the child’s personal progress and the next steps in the learning journey. Offer feedback that: <ul style="list-style-type: none"> encourages children to talk about and then complete the reflection suggested in Section 4 discusses with the children the effectiveness of the questions that were used, and whether they could be changed to gather more relevant historical information. Use the <i>Assessment resource: Question starter grid</i> to provide examples of a range of questions discusses the choice of objects and whether different choices could have improved the findings provides feedback on the use of historical terms and whether the analysis and findings were communicated effectively. Highlight areas for improvement using models of the completed task to highlight the dimensions of quality.
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Resources

For guidance on providing feedback, see the professional development packages titled *Seeking and providing feedback*: www.qsa.qld.edu.au/18076.html.

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Image: Old telephone:/Modern smartphone

Technology used in life has changed over time. By comparing technology from the past and the present we can learn about how technology has impacted on people's lives.

You will:

- pose questions about the past using sources provided
- compare objects from the past to the present
- answer questions using sources provided
- present a historical narrative as a speech that describes how technology has changed over time and impacted on people's lives.

Section 1. Posing questions

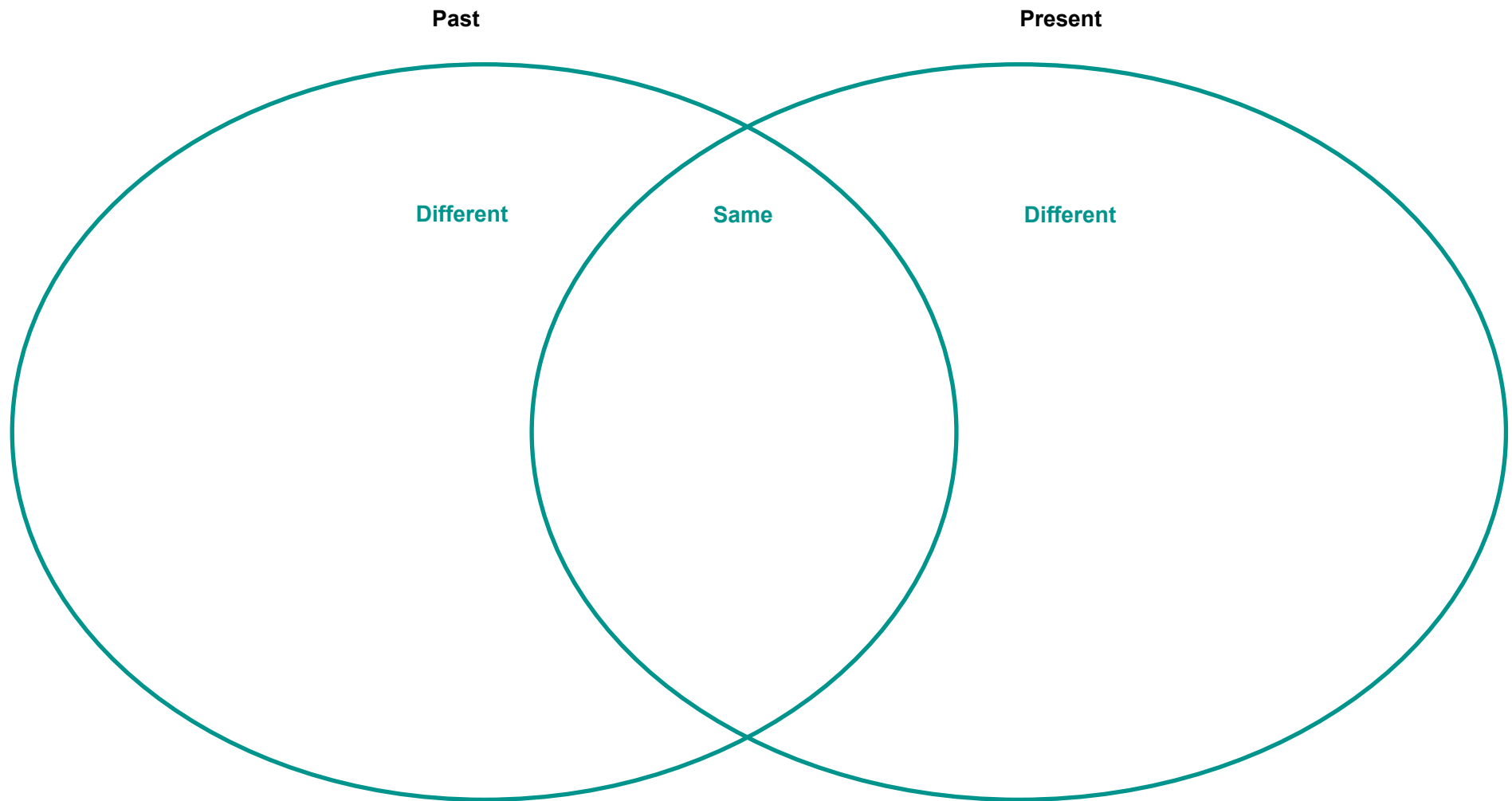
Choose one object from your class museum.

- Use these question starters to pose questions about your object:
 - what, when, where, who, how, why?
- Ask your teacher to check the questions.

1.
2.
3.
4.
5.
6.

Section 2. Comparing objects

- Choose one more object from your class museum that is newer or older than your first object.
- Use the Venn diagram to show what is the same and what is different (e.g. features, materials and functions) about the objects from the past and present.



Section 3. Answering questions

Find answers to your questions by using the sources provided by your teacher and interviewing adults about life in the past and the present.

Question	Answer	Object One	Object Two

Section 4. Developing a historical narrative

Plan a spoken/signed presentation

Your presentation will:

- tells about the objects from the past and the present with similar features, materials and functions
- compares the two objects (design, function, impact on daily life)
- explains how the technology object has changed over time
- explains changes in how the technology objects are used in the past and the present.

Rehearse the presentation



Watch a classmate rehearse their presentation. Use these questions to give feedback.



Some more information might be needed.



It was clear to understand.

Presenter:		
Did the presenter:		
• choose objects that have similar uses?		
• explain which one was older and why?		
• explain the differences?		
• give reasons for differences?		
• explain how the technology object has changed over time?		
• explain changes in how the technology objects are used in the past and the present?		

Reflection — Two stars and a wish

List two things you think the presentation does well and one thing you wish could be improved.



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.....



Use feedback and present

- Use the feedback provided by a classmate to improve your presentation.
- Give a spoken/signed presentation using information from your research.

You may choose your own way of using your historical findings to support your presentation.

You might:

- display the original objects and use them to show your information in the presentation
- provide support information using written, graphic or digital technologies.

Investigating changes in technology: The past in the present

Name

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Purpose of assessment: To compare technology from the past and the present to identify changes over time and the impact on our daily lives.

Historical Knowledge and Understanding	Questioning and researching	Analysing and interpreting	Communicating	
Uses objects from the past and present to identify the impact of changing technology in people's lives Sections 2, 3 and 4	Poses questions to learn how technology has changed over time Section 1	Explores sources to analyse technology from the past and the present Sections 2 and 3	Explains and communicates historical ideas about how technology has changed over time using terms to distinguish between past and present Section 4	
<ul style="list-style-type: none"> ◀ Examines a technology from the past and a similar one from the present to provide detailed information about the changes and the relationship to how this has impacted people's lives. ◀ Examines a technology from the past and a similar one from the present to indicate the changes over time. Makes statements about how the technology objects help people's lives. ◀ Uses statements and simple descriptions about technology from the past and a similar object from the present. 	<ul style="list-style-type: none"> ◀ Selects, adapts and poses questions that clearly connect the change in technology over time to the changes in people's lives. ◀ Selects and poses appropriate questions that inquire about the past and indicate change over time, e.g. choosing the appropriate verb tense "what did?" ◀ Selects, with direction, questions to inquiry about technology. 	<ul style="list-style-type: none"> ◀ Locates and records information from multiple sources; compares technology to answer questions about change and its impact on people's lives. ◀ Collects and records information from supplied sources to answer questions about technology changing over time. ◀ Uses practice and scaffolding to record facts from supplied sources and answers questions about the technology. 	<ul style="list-style-type: none"> ◀ Creates a spoken and multimodal presentation that clearly explains relevant historical changes in technology and relates them to changes in people's lives. Purposefully uses terms to distinguish past and present, e.g. "This object is much older than this one and was used a long time ago when ..." ◀ Creates a spoken and multimodal presentation that includes information about the change in technology over time. Makes statements about how the objects help people's lives. Uses relevant terms to locate objects in the past or present, e.g. "In the past, in the olden days, in today's world, now." ◀ Creates a spoken/signed presentation using short statements about the technology that shows the passing of time. Uses terms to locate objects in the past, with guidance. 	<p>A P</p> <p>M C</p> <p>W W</p> <p>E X</p> <p>B A</p>

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Purpose of assessment: To compare technology from the past and the present to identify changes over time and the impact on our daily lives.

			Task-specific descriptors				
			Applying (AP)	Making Connections (MC)	Working With (WW)	Exploring (EX)	Becoming Aware (BA)
Understanding and skills	Historical Knowledge and Understanding		Examines a technology from the past and a similar one from the present to provide detailed information about the changes and the relationship to how this has impacted people's lives.	Examines a technology from the past and a similar one from the present to provide information about the changes over time. Links the change to how it has helped people's lives.	Examines a technology from the past and a similar one from the present to indicate the changes over time. Makes statements about how the technology objects help people's lives.	Uses statements about obvious changes in a technology from the past to a similar one from the present. May include basic statements about how each helps people's lives.	Uses statements and simple descriptions about technology from the past and a similar object from the present.
		Questioning and researching	Poses questions to learn how technology has changed over time. Section 1	Selects, adapts and poses questions that clearly connect the change in technology over time to the changes in people's lives.	Selects and poses questions that connect the change in technology over time to how change has helped people's lives.	Selects and poses appropriate questions that inquire about the past and indicate change over time, e.g. choosing the appropriate verb tense "what did?"	Selects and poses, with guidance, relevant questions to inquire about the technology.
	Analysing and interpreting	Explores sources to analyse technology from the past and the present. Sections 2 and 3	Locates and records information from multiple sources; compares technology to answer questions about change and its impact on people's lives.	Locates and records information from supplied and other sources to answer questions about technological change and how it helps people's lives.	Collects and records information from supplied sources to answer questions about technology changing over time.	Records, with direction, information from supplied sources to answer questions about technology changing over time.	Uses practice and scaffolding to record facts from supplied sources and answers questions about the technology.

		Communicating	Explains and communicates historical ideas about how technology has changed over time. Section 4	Creates a spoken and multimodal presentation that clearly explains relevant historical changes in technology and relates them to changes in people's lives.	Creates a spoken and multimodal presentation with information that links the changes in technology to changes in people's lives.	Creates a spoken and multimodal presentation that includes information about the change in technology over time. Makes statements about how the objects help people's lives.	Creates a spoken/signed presentation with simple supporting multimodal information that explores some obvious changes in the technology and how the objects help people's lives.	Creates a spoken/signed presentation using short statements about the technology that shows the passing of time.
			Uses terms to distinguish between past and present. Section 4	Purposefully uses terms to distinguish past and present, e.g. "This object is much older than this one and was used a long time ago when ..."	Distinguishes between past and present by indicating degrees of terms that denote time and shows connections to time, e.g. "This object was used a very long time ago when grandad was a boy."	Uses relevant terms to locate objects in the past or present, e.g. "In the past, in the olden days, in today's world, now."	Uses simple terms to locate objects in the past, e.g. "A long time ago."	Uses terms to locate objects in the past, with guidance.

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Technology objects from the past

Here are some suggestions for sets of objects that show technologies changing over time:

- **Playing music**
gramophone record > LP record > cassette > CD > mp3 player
- **Washing clothes**
wash board > wringer > electric washer > top loader /front loader
- **Riding bicycles**
velocipede > tricycle > penny-farthing > chain bicycle
- **Drilling holes**
brace and bit > hand drill > electric drill > cordless drill
- **Cooking**
wood stove > gas/electric stove > microwave
- **Lighting**
candle > kerosene lamp > light bulb > fluorescent tube > LED
- **Cooling**
hand fan > electric fan > air conditioner
- **Mowing**
scythe > push mower > motor mower

When children and teachers collaborate in their research and discussions they may also consider how the objects give evidence of other changes, for example:





- **Materials**
wood, leather, natural fibres, cane > plastics, synthetics, metals, composites
- **Design**
hand-held, heavy, portable, battery-operated, spring-based
- **Manufacturing**
hand-made, made to order > factory mass produced
- **Source**
locally made, perhaps by someone you knew > international manufacturing and distribution

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Changing technologies

The following examples show some sets of objects designed for a similar purpose but at different times. Images such as these could be made into slide shows or flash cards to support discussion about the use of technology and how it has changed over time.

Writing	
Past	Present
 <p>Image: Twitter Monitoring Typewriter (TwpWriter), Oomlou's Flickrstream Creative Commons Attribution 2.0, www.flickr.com/photos/reneeanddolan/5686763963</p> <p>Typewriter</p>	 <p>Image: VISMA_laptop, Visma Finland's Flickrstream, Creative Commons Attribution2.0, www.flickr.com/photos/63316700@N02/6714012319</p> <p>Laptop</p>
 <p>Image: A cleanish slate, Dolanh's Flickrstream, Creative Commons Attribution 2.0, www.flickr.com/photos/reneeanddolan/5686763963</p> <p>Slate</p>	 <p>Image: QSA</p> <p>Tablet computer</p>

Communicating

Past

Image: Telephone, Fofalani's Flickrstream Creative Commons Attribution 2.0, www.flickr.com/photos/reneeanddolan/5686763963

Wall telephone



Image: Automatic Electric Monophone 40, Alexkerhead's Flickrstream, Creative Commons Attribution 2.0 <http://www.flickr.com/photos/alexkerhead/2657194497>

Rotrary dial telephone

Present

Image: the Mac 128 sitting next to my G4, Blakespot's Flickrstream, Creative Commons Attribution 2.0, www.flickr.com/photos/blakespot/2388811229

Computer — email



Image: QSA

Mobile phone — smartphone

Playing

Past



Image: Slot cars, Jeff Rhines 'Flickrstream Creative Commons Attribution 2.0, www.flickr.com/photos/therhino/220433079

Slot car set



Image: Old rusty toy car, Lara604'sFlickrstream, Creative Commons Attribution 2.0 <http://www.flickr.com/photos/alexkerhead/2657194497>

Pedal car

Present

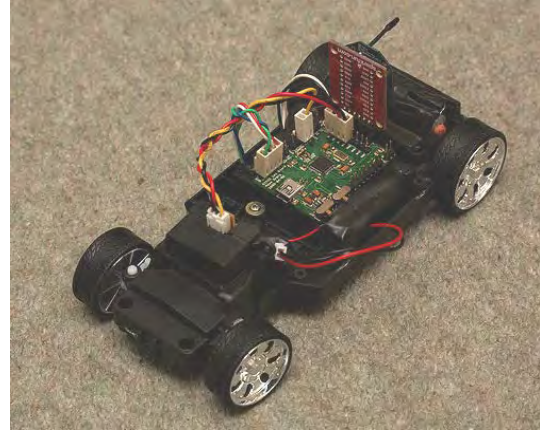


Image: Robot3, Randomskk's Flickrstream, Creative Commons Attribution2.0, <http://www.flickr.com/photos/randomskk/3921235172>

Remote-control robot car









Image: Photograph taken 28 October 2007 in Kansas by Barbara Reyes, Marion Doss', Creative Commons Attribution 2.0, <http://www.flickr.com/photos/ooocha/2736850617>

Electric toy car

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Historical inquiry questions

 <p>What</p> <ul style="list-style-type: none"> • What is the object? • What was it used for? • What materials were used to make it? • What are the <i>similarities</i> between old and new objects used for the same purpose? • What are the <i>differences</i> between old and new objects used for the same purpose? • What does this object show about how life has changed since it was made? 	 <p>Who</p> <ul style="list-style-type: none"> • Who would have used this object?
 <p>When</p> <ul style="list-style-type: none"> • When was this object used? 	 <p>Where</p> <ul style="list-style-type: none"> • Where was this object used?
 <p>Why</p> <ul style="list-style-type: none"> • Why was this object important in daily life? • Why did you choose this object? 	 <p>How</p> <ul style="list-style-type: none"> • How has the technology used to make this object change over time? • How has this object impacted on daily life in the past and in the present?

Exploring family life: My past, present and future

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Question starter grid

The following question starter grid may be useful in assisting children to pose questions to inquire about objects.

What is?	When is?	Which is?	Who is?	Why is?	How is?
What did?	When did?	Which did?	Who did?	Why did?	How did?
What can?	When can?	Which can?	Who can?	Why can?	How can?
What would?	When would?	Which would?	Who would?	Why would?	How would?
What might?	When might?	Which might?	Who might?	Why might?	How might?