

A decorative graphic consisting of three blue, 3D-rendered spheres of varying sizes. The largest sphere is at the bottom right, a medium one is at the top center, and a smaller one is in the middle left. Thin, light blue lines connect the top corners of the page to the spheres, creating a sense of depth and structure.

## **F-10 Inquiry Skills Scope and Sequence**

and

## **F-10 Core Skills and Tools**

Inquiry curriculum skills, evident in the Australian Curriculum and general capabilities, mapped to the Guided Inquiry Design Framework, and core essential skills and web tools to support teaching and learning programs.

**Karen Bonanno**


**With contribution from Lee FitzGerald**

The inquiry framework referred to below comes from *Guided Inquiry Design: A Framework for Inquiry in Your School* by Carol C Kuhlthau, Leslie K Maniotes and Anne K Caspari. In 2012, Karen Bonanno was given permission by the authors of *Guided Inquiry Design: A Framework for Inquiry in Your School*, Carol Kuhlthau, Leslie Maniotes and Ann Caspari, to develop a scope and sequence tying the five kinds of learning to the inquiry skills and general capabilities in the Australian Curriculum.

© Guided Inquiry Design Framework - Kuhlthau C. et al. (2012). *Guided Inquiry Design: A Framework for Inquiry in Your School*. Santa Barbara, California: Libraries Unlimited.



Mapping the curriculum and general capabilities to Guided Inquiry Design Framework by Karen Bonanno. (2015). Zillmere, Queensland: Eduwebinar Pty Ltd.

All material identified by  is material subject to copyright under the Copyright Act 1968 (Cth) and is owned by the Australian Curriculum, Assessment and Reporting Authority 2015.

**For all Australian Curriculum material except elaborations:** This is an extract from the Australian Curriculum.

**Elaborations:** This may be a modified extract from the Australian Curriculum and may include the work of other authors.

**Disclaimer:** ACARA neither endorses nor verifies the accuracy of the information provided and accepts no responsibility for incomplete or inaccurate information. In particular, ACARA does not endorse or verify that:

- The content descriptions are solely for a particular year and subject;
- All the content descriptions for that year and subject have been used; and
- The author's material aligns with the Australian Curriculum content descriptions for the relevant year and subject.

You can find the unaltered and most up to date version of this material at <http://www.australiancurriculum.edu.au> This material is reproduced with the permission of ACARA.

**Legend for document:**

**Black** = Content descriptors from the Australian Curriculum



**Blue** = Descriptors from the Australian Curriculum general capabilities



**Red** = suggested introduction of inquiry skills as identified in Kulthau, C. et al. (2012). *Guided Inquiry Design: A Framework for Inquiry in Your School*. Santa Barbara, California: Libraries Unlimited. Contribution by Lee FitzGerald and Karen Bonanno.

Guided Inquiry Design Framework	F- Year 2	Year 3-4	Year 5-6	Year 7-8	Year 9-10
<b>Open</b> Invitation to inquiry Open minds Stimulate curiosity	<b>HISTORY</b> Distinguish between the past, present and future		<b>Express interest in topic</b>  <b>Identify key words and phrases</b>	<b>Look for aspect of topic that engages</b>  <b>Identify key words, concepts and ideas</b>	<b>Consider aspects of topic that engages</b>  <b>Identify and group key concepts and ideas</b>
	<b>SCIENCE</b> Respond to questions about familiar objects and events  Respond to and pose questions, and make predictions about familiar objects and events	<b>SCIENCE</b> With guidance, identify questions in familiar contexts that can be investigated scientifically and predict what might happen based on prior knowledge		<b>Pose questions for discussion and exploration</b>  <b>Understand research as a process</b>	<b>Pose pertinent questions for discussion and exploration</b>  <b>Understand an information search process / framework</b>

	F-Year 2	Year 3-4	Year 5-6	Year 7-8	Year 9-10
	Not applicable	<b>CIVICS &amp; CITIZENSHIP</b> Work in groups to identify issues, possible solutions and a plan for action	<b>CIVICS &amp; CITIZENSHIP</b> Work in groups to identify issues and develop possible solutions and plan for action using decision making processes	<b>CIVICS &amp; CITIZENSHIP</b> Use democratic processes to reach consensus on a course of action relating to a civics or citizenship issue and plan for that action	<b>CIVICS &amp; CITIZENSHIP</b> Use democratic processes to reach consensus on a course of action relating to a civics or citizenship issue and plan for that action
<b>Immerse</b>  <b>Build background knowledge</b> <b>Connect to content</b> <b>Discover interesting ideas</b>	F-Year 2  Not applicable	Year 3-4  <b>CIVICS &amp; CITIZENSHIP</b> Interact with others with respect, share views and recognize there are different points of view	Year 5-6  <b>CIVICS &amp; CITIZENSHIP</b> Interact with others with respect, identify different points of view and share personal perspectives and opinions	Year 7-8  <b>CIVICS &amp; CITIZENSHIP</b> Appreciate multiple perspectives and use strategies to mediate differences	Year 9-10  <b>CIVICS &amp; CITIZENSHIP</b> Recognise and consider multiple perspectives and ambiguities, and use strategies to negotiate and resolve contentious issues
	<b>F – Year 2</b>  <b>As a class, identify prior knowledge on simple topics</b>  <b>Brainstorm for possible answers</b>	<b>Year 3-4</b>  <b>With guidance, identify prior knowledge on simple topics</b>  <b>Brainstorm for possible answers</b>	<b>Year 5-6</b>  <b>Identify prior knowledge on suggested topics</b>  <b>Brainstorm for answers</b>  <b>Choose between</b>	<b>Year 7-8</b>  <b>Articulate prior knowledge</b>  <b>Relate inquiry task to content</b>  <b>Relate knowledge to real world</b>	<b>Year 9-10</b>  <b>Articulate and record prior knowledge</b>  <b>Relate inquiry task to real world</b>  <b>Relate inquiry task to specific content</b>

		<b>Choose between alternative interesting topics</b>	<b>alternative interesting topics</b>	<b>Brainstorm and record answers</b>  <b>Choose between alternative interesting topics</b>	<b>Brainstorm and record answers</b>  <b>Choose an interesting topic to explore</b>
	<b>F-Year 2</b>  <b>ICT</b> <b>Use ICT to identify, record and classify textual and graphic information to show what is known and what needs to be investigated</b>				
<b>Explore</b>  <b>Explore interesting ideas</b> <b>Look around</b> <b>Dip in</b>	<b>F- Year 2</b>  <b>HISTORY</b> <b>Explore a range of sources about the past</b>  <b>Explore a point of view</b>	<b>Year 3-4</b>  <b>HISTORY</b> <b>Locate relevant information from sources provided</b>	<b>Year 5-6</b>  <b>HISTORY</b> <b>Identify points of view in the past and present</b>  <b>Identify and locate a range of relevant sources</b>	<b>Year 7-8</b>  <b>HISTORY</b> <b>Identify and locate relevant sources, using ICT and other methods</b>  <b>Identify and describe points of view, attitudes and values in primary and secondary sources</b>	<b>Year 9-10</b>  <b>HISTORY</b> <b>Identify and analyse the perspectives of people from the past</b>  <b>Identify and analyse different historical interpretations (including their own)</b>

	<p><b>F-Year 2</b></p> <p><b>SCIENCE</b> Explore and make observations by using the senses</p> <p>Participate in different types of guided investigations to explore and answer questions, such as manipulating materials, testing ideas, and accessing information sources</p>				
	<p><b>F-Year 2</b></p> <p><b>DESIGN &amp; TECHNOLOGIES</b> Explore needs or opportunities for designing, and the technologies needed to realise designed solutions</p>	<p><b>Year 3-4</b></p> <p><b>DESIGN &amp; TECHNOLOGIES</b> Critique needs or opportunities for designing and explore and test a variety of materials, components, tools and equipment and the techniques needed to produce designed solutions</p>	<p><b>Year 5-6</b></p> <p><b>DESIGN &amp; TECHNOLOGIES</b> Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions</p>	<p><b>Year 7-8</b></p> <p><b>DESIGN &amp; TECHNOLOGIES</b> Critique needs or opportunities for designing and investigate, analyse and select a range of materials, components, tools, equipment and processes to develop design ideas</p>	<p><b>Year 9-10</b></p> <p><b>DESIGN &amp; TECHNOLOGIES</b> Critique needs or opportunities to develop design briefs and investigate and select an increasingly sophisticated range of materials, systems, components, tools and equipment to develop design ideas</p>

	<p><b>F-Year 2</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Identify and explore information and ideas from source materials</p>	<p><b>Year 3-4</b></p> <p>Explore simple information sources to choose most interesting</p> <p>With guidance, conduct simple searches for own sources on a given topic</p> <p>Choose most interesting</p> <p>With guidance, make a chart of categories of information</p>	<p><b>Year 5-6</b></p> <p>Explore independent information sources for information on given topic</p> <p>Choose and explain most interesting</p> <p>Skim read sources for interest, scan for content and record basic bibliographic information</p> <p>Summarise broad concepts into a chart</p>	<p><b>Year 7-8</b></p> <p>Explore encyclopaedic sources of information for overview information on a topic and explain why</p> <p>Choose an area of interest and explain interest in relation to topic</p> <p>Use successful search terms</p> <p>Skim read a range of sources for interest, scan for content and record bibliographic information</p> <p>Capture and categorise overview information into a chart</p>	<p><b>Year 9-10</b></p> <p>Explore a wide range of information sources for overview information on a topic</p> <p>Choose an area of interest and explain interest in relation to identified topic</p> <p>Use successful search terms and keyword phrases to guide exploration</p> <p>Skim read a range of sources for interest, scan for content and record full bibliographic information</p> <p>Capture and categorise information into a chart</p> <p>Begin to formulate a possible inquiry question</p>
--	----------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Identify</b>  <b>Pause and ponder</b> <b>Identify inquiry question</b> <b>Decide direction</b>	<b>F-Year 2</b>  <b>HISTORY</b> <b>Pose questions about the past using sources provided</b>	<b>Year 3-4</b>  <b>HISTORY</b> <b>Pose a range of questions about the past</b>  <b>Identify different points of view</b>	<b>Year 5-6</b>  <b>HISTORY</b> <b>Identify questions to inform an historical inquiry</b>	<b>Year 7-8</b>  <b>HISTORY</b> <b>Identify a range of questions about the past to inform a historical inquiry</b>	<b>Year 9-10</b>  <b>HISTORY</b> <b>Identify and select different kinds of questions about the past to inform historical inquiry</b>  <b>Evaluate and enhance these questions</b>
	<b>SCIENCE</b> <b>Respond to and pose questions, and make predictions about familiar objects and events</b>  <b>Participate in different types of guided investigations to explore and answer questions, such as manipulating materials, testing ideas, and accessing information sources</b>	<b>SCIENCE</b> <b>With guidance, identify questions in familiar contexts that can be investigated scientifically and predict what might happen based on prior knowledge</b>  <b>Suggest ways to plan and conduct investigations to find answers to questions</b>	<b>SCIENCE</b> <b>With guidance, pose questions to clarify practical problems or inform a scientific investigation, and predict what the findings of an investigation might be</b>  <b>With guidance, plan appropriate investigation methods to answer questions or solve problems</b>	<b>SCIENCE</b> <b>Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge</b>	<b>SCIENCE</b> <b>Formulate questions or hypotheses that can be investigated scientifically</b>  <b>Plan, select and use appropriate investigation methods, including field work and laboratory experimentation, to collect reliable data; assess risk and address ethical issues associated with these methods</b>



	<b>F-Year 2</b>	<b>Year 3-4</b>	<b>Year 5-6</b>	<b>Year 7-8</b>	<b>Year 9-10</b>
	<b>GEOGRAPHY</b> Make observations about familiar places and pose questions about them  Pose questions about familiar and unfamiliar places	<b>GEOGRAPHY</b> Develop geographical questions to investigate	<b>GEOGRAPHY</b> Develop geographical questions to investigate and plan an inquiry	<b>GEOGRAPHY</b> Develop geographically significant questions and plan an inquiry using appropriate geographical methodologies and concepts	<b>GEOGRAPHY</b> Develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts
	Not applicable	Not applicable	<b>ECONOMICS &amp; BUSINESS</b> Develop questions to guide an investigation of an economic or business issue or event, and gather data and information from observation, print and online sources	<b>ECONOMICS &amp; BUSINESS</b> Develop questions about an economic or business issue or event, and plan and conduct an investigation or project	<b>ECONOMICS &amp; BUSINESS</b> Develop questions and hypotheses about an economic or business issue or event, and plan and conduct an investigation
	Not applicable	<b>CIVICS &amp; CITIZENSHIP</b> Pose questions about the society in which they live	<b>CIVICS &amp; CITIZENSHIP</b> Develop questions and gather a range of information to investigate the society in which they live	<b>CIVICS &amp; CITIZENSHIP</b> Develop a range of questions to investigate Australia's political and legal systems	<b>CIVICS &amp; CITIZENSHIP</b> Develop, select and evaluate a range of questions to investigate Australia's political and legal systems

	<p><b>F-Year 2</b></p> <p><b>DIGITAL TECHNOLOGIES</b> Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems</p>	<p><b>Year 3-4</b></p> <p><b>DIGITAL TECHNOLOGIES</b> Define simple problems, and describe and follow a sequence of steps and decisions (algorithms) needed to solve them</p>	<p><b>Year 5-6</b></p> <p><b>DIGITAL TECHNOLOGIES</b> Define problems in terms of data and functional requirements, and identify features similar to previously solved problems</p>	<p><b>Year 7-8</b></p> <p><b>DIGITAL TECHNOLOGIES</b> Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints</p>	<p><b>Year 9-10</b></p> <p><b>DIGITAL TECHNOLOGIES</b> Precisely define and decompose real-world problems, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs</p>
	<p><b>F-Year 2</b></p> <p><b>ICT</b> Use ICT to identify, record and classify textual and graphic information to show what is known and what needs to be investigated</p>	<p><b>Year 3-4</b></p> <p><b>ICT</b> Use ICT to plan an information search or generation of information, recognising some pattern within the information</p>	<p><b>Year 5-6</b></p> <p><b>ICT</b> Use a range of ICT to identify and represent patterns in sets of information and to pose questions to guide searching for, or generating, further information</p>	<p><b>Year 7-8</b></p> <p><b>ICT</b> Use a range of ICT to analyse information in terms of implicit patterns and structures as a basis to plan an information search or generation</p>	<p><b>Year 9-10</b></p> <p><b>ICT</b> Select and use a range of ICT independently and collaboratively, analyse information to frame questions and plan search strategies or data generation</p>
	<p><b>CRITICAL / CREATIVE THINKING</b> Pose factual and exploratory questions based on personal interests and experiences</p>	<p><b>CRITICAL / CREATIVE THINKING</b> Pose questions to expand their knowledge about the world</p>	<p><b>CRITICAL / CREATIVE THINKING</b> Pose questions to clarify and interpret information and probe for causes and consequences</p>	<p><b>CRITICAL / CREATIVE THINKING</b> Pose questions to probe assumptions and investigate complex issues</p>	<p><b>CRITICAL / CREATIVE THINKING</b> Pose questions to critically analyse complex issues and abstract ideas</p>

	Pose questions to identify and clarify issues, and compare information in their world				
<b>Gather</b>  <b>Gather important information</b> <b>Go broad</b> <b>Go deep</b>	<b>F-Year 2</b>  <b>HISTORY</b> <b>Identify and compare features of objects from the past and present</b>	<b>Year 3-4</b>  <b>HISTORY</b> <b>Use historical terms</b>  <b>Identify sources</b>  <b>Locate relevant information from sources provided</b>	<b>Year 5-6</b>  <b>HISTORY</b> <b>Use historical terms and concepts</b>  <b>Locate information related to inquiry questions in a range of sources</b>  <b>Compare information from a range of sources</b>	<b>Year 7-8</b>  <b>HISTORY</b> <b>Use historical terms and concepts</b>  <b>Identify and locate relevant sources, using ICT and other methods</b>  <b>Identify the origin and purpose of primary and secondary sources</b>  <b>Locate, compare, select and use information from a range of sources as evidence</b>  <b>Identify and describe points of view, attitudes and values in primary and secondary sources</b>	<b>Year 9-10</b>  <b>HISTORY</b> <b>Use historical terms and concepts</b>  <b>Identify and locate relevant sources, using ICT and other methods</b>  <b>Identify the origin, purpose and context of primary and secondary sources</b>  <b>Process and synthesise information from a range of sources for use as evidence in an historical argument</b>  <b>Evaluate the reliability and usefulness of primary &amp; secondary sources</b>  <b>Identify and analyse</b>

					<p>the perspectives of people from the past</p> <p>Identify and analyse different historical interpretations (including their own)</p>
	<p><b>F-Year 2</b></p> <p><b>SCIENCE</b> Use informal measurements in the collection and recording of observations, with the assistance of digital technologies as appropriate</p> <p>Engage in discussions about observations and use methods such as drawing to represent ideas</p> <p>Through discussion, compare observations with predictions</p>	<p><b>Year 3-4</b></p> <p><b>SCIENCE</b> Safely use appropriate materials, tools or equipment to make and record observations, using formal measurements and digital technologies as appropriate</p> <p>Use a range of methods including tables and simple column graphs to represent data and to identify patterns and trends</p> <p>Compare results with predictions, suggesting possible reasons for findings</p>	<p><b>Year 5-6</b></p> <p><b>SCIENCE</b> Decide which variable should be changed and measured in fair tests and accurately observe, measure and record data, using digital technologies as appropriate</p> <p>Use equipment and materials safely, identifying potential risks</p> <p>Construct and use a range of representations, including tables and graphs, to represent and describe observations, patterns or relationships in data using digital</p>	<p><b>Year 7-8</b></p> <p><b>SCIENCE</b> In fair tests, measure and control variables, and select equipment to collect data with accuracy appropriate to the task</p> <p>Construct and use a range of representations, including graphs, keys and models to represent and analyse patterns or relationships, including using digital technologies as appropriate</p> <p>Summarise data, from students' own investigations and secondary sources,</p>	<p><b>Year 9-10</b></p> <p><b>SCIENCE</b> Select and use appropriate equipment, including digital technologies, to systematically and accurately collect and record data</p> <p>Analyse patterns and trends in data, including describing relationships between variables and identifying inconsistencies</p> <p>Use knowledge of scientific concepts to draw conclusions that are consistent with evidence</p> <p>Critically analyse the</p>

			<p>technologies as appropriate</p> <p>Compare data with predictions and use as evidence in developing explanations</p>	<p>and use scientific understanding to identify relationships and draw conclusions</p> <p>Collaboratively and individually plan and conduct a range of investigation types, including fieldwork and experiments, ensuring safety and ethical guidelines are followed</p>	<p>validity of information in secondary sources and evaluate the approaches used to solve problems</p>
	<p><b>F-Year 2</b></p> <p><b>GEOGRAPHY</b> Record geographical data and information collected by observation</p> <p>Collect and record geographical data and information, for example, by observing, by interviewing, or from sources such as photographs, plans, satellite images, story books and films</p>	<p><b>Year 3-4</b></p> <p><b>GEOGRAPHY</b> Collect and record relevant geographical data and information, for example, by observing, by interviewing, conducting surveys, measuring, or from sources such as maps, photographs, satellite images, the media and the internet</p>	<p><b>Year 5-6</b></p> <p><b>GEOGRAPHY</b> Collect and record relevant geographical data and information, using ethical protocols, from primary and secondary sources, for example, people, maps, plans, photographs, satellite images, statistical sources and reports</p> <p>Evaluate sources for</p>	<p><b>Year 7-8</b></p> <p><b>GEOGRAPHY</b> Collect, select and record relevant geographical data and information, using ethical protocols, from appropriate primary and secondary sources</p> <p>Evaluate sources for their reliability and usefulness and represent data in a range of appropriate forms, for example, climate graphs,</p>	<p><b>Year 9-10</b></p> <p><b>GEOGRAPHY</b> Collect, select, record and organise relevant data and geographical information, using ethical protocols, from a range of appropriate primary and secondary sources</p> <p>Evaluate sources for their reliability, bias and Usefulness, and represent multi-variable data in a</p>

			their usefulness, and represent data in different forms, for example, maps, plans, graphs, tables, sketches and diagrams	compound column graphs, population pyramids, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies	range of appropriate forms, for example, scatter plots, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies
F-Year 2 Not applicable	Year 3-4 Not applicable	Year 5-6 <b>ECONOMIC &amp; BUSINESS</b> Develop questions to guide an investigation of an economic or business issue or event, and gather data and information from observation, print and online sources	Year 7-8 <b>ECONOMIC &amp; BUSINESS</b> Gather relevant data and information from a range of digital, online and print sources	Year 9-10 <b>ECONOMIC &amp; BUSINESS</b> Gather relevant and reliable data and information from a range of digital, online and print sources	
F-Year 2 Not applicable	Year 3-4 <b>CIVICS &amp; CITIZENSHIP</b>	Year 5-6 <b>CIVICS &amp; CITIZENSHIP</b> Develop questions and gather a range of information to investigate the society in which they live	Year 7-8 <b>CIVICS &amp; CITIZENSHIP</b> Identify, gather and sort information and ideas from a range of sources	Year 9-10 <b>CIVICS &amp; CITIZENSHIP</b> Identify, gather and sort information and ideas from a range of sources and reference as appropriate	

	<p><b>F-Year 2</b></p> <p><b>DIGITAL TECHNOLOGIES</b> Collect, explore and sort data, and use digital systems to present the data creatively</p>	<p><b>Year 3-4</b></p> <p><b>DIGITAL TECHNOLOGIES</b> Collect, access and present different types of data using simple software to create information and solve problems</p>	<p><b>Year 5-6</b></p> <p><b>DIGITAL TECHNOLOGIES</b> Acquire, store and validate different types of data and use a range of commonly available software to interpret and visualise data in context to create information</p>	<p><b>Year 7-8</b></p> <p><b>DIGITAL TECHNOLOGIES</b> Acquire data from a range of digital sources and evaluate authenticity, accuracy and timeliness</p>	<p><b>Year 9-10</b></p> <p><b>DIGITAL TECHNOLOGIES</b> Develop techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, considering privacy and security requirements</p>
	<p><b>F-Year 2</b></p> <p><b>ICT</b> Recognise ownership of their own digital work</p> <p>Recognise ownership of digital products that others produce and that what they create or provide can be used or misused by others</p> <p>Follow class rules about using digital information</p> <p>Follow class rules about applying selected standard guidelines and techniques to secure</p>	<p><b>Year 3-4</b></p> <p><b>ICT</b> Acknowledge when they use digital products created by someone else, and start to indicate the source</p> <p>Independently apply standard guidelines and techniques for particular digital systems to secure digital information</p> <p>Locate, retrieve or generate information from a range of digital</p>	<p><b>Year 5-6</b></p> <p><b>ICT</b> Identify the legal obligations regarding the ownership and use of digital products and apply some referencing conventions</p> <p>Independently apply strategies for determining and protecting the security of digital information and assess the risks associated with online environments</p>	<p><b>Year 7-8</b></p> <p><b>ICT</b> Apply practices that comply with legal obligations regarding the ownership and use of digital products resources</p> <p>Independently apply strategies for determining the appropriate type of digital information suited to the location of storage and adequate security for online environments</p>	<p><b>Year 9-10</b></p> <p><b>ICT</b> Identify and describe ethical dilemmas and consciously apply practices that protect intellectual property</p> <p>Use a range of strategies for securing and protecting information, assess the risks associated with online environments and establish appropriate security strategies and codes of conduct</p>

	<p><b>digital information</b></p> <p>Use icons to locate or generate required information</p> <p>Locate information from a given set of digital sources</p> <p>Use ICT to identify where information is located</p> <p>Use ICT to identify, record and classify textual and graphic information to show what is known and what needs to be investigated</p> <p>Save and retrieve digital data with support</p> <p>Manage and maintain digital data with guidance</p>	<p><b>sources</b></p> <p>Use ICT to plan an information search or generation of information, recognising some pattern within the information</p> <p>Manage and maintain digital data using common methods</p>	<p>Locate, retrieve or generate information using search engines and simple search functions and classify information in meaningful ways</p> <p>Use a range of ICT to identify and represent patterns in sets of information and to pose questions to guide searching for, or generating, further information</p> <p>Manage and maintain data on different storage mediums - locally and on networks</p>	<p>Use a range of ICT to analyse information in terms of implicit patterns and structures as a basis to plan an information search or generation</p> <p>Locate, retrieve or generate information using search facilities and organise information in meaningful ways</p> <p>Manage and maintain data for groups of users using a variety of methods and systems</p>	<p>Select and use a range of ICT independently and collaboratively, analyse information to frame questions and plan search strategies or data generation</p> <p>Use advanced search tools and techniques or simulations and digital models to locate or generate precise data and information that supports the development of new understandings</p> <p>Manage and maintain data securely in a variety of storage mediums and formats</p>
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



	<p><b>F-Year 2</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Gather similar information or depictions from given sources</p>	<p><b>Year 3-4</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Identify main ideas and select and clarify information from a range of sources</p> <p>Collect, compare and categorise facts and opinions found in a widening range of sources</p>	<p><b>Year 5-6</b></p> <p>Collect, compare and categorise information from a range of sources to discern the difference between opinion and fact</p> <p>Keep a log of essential bibliographic details</p>	<p><b>Year 7-8</b></p> <p>Collect, compare and categorise information from digital, online and print sources</p> <p>Scrutinise information for currency, accuracy, authenticity and relevancy</p> <p>Keep a log of bibliographic details</p>	<p><b>Year 9-10</b></p> <p>Collect, synthesise and organise information from a range of digital, online and print sources</p> <p>Critique information for reliability, usefulness and purpose</p> <p>Record full bibliographic details</p>
<p><b>Create / Share</b></p> <p>Reflect on learning Go beyond facts to make meaning Create to communicate</p> <p>Learn from each other Share learning Tell your story</p>	<p><b>F-Year 2</b></p> <p><b>HISTORY</b> Sequence familiar objects and events</p> <p>Distinguish between the past, present and future</p> <p>Develop a narrative about the past</p> <p>Use a range of communication forms (oral, graphic, written, role play) and digital</p>	<p><b>Year 3-4</b></p> <p><b>HISTORY</b> Sequence historical people and events</p> <p>Develop texts, particularly narratives</p> <p>Use a range of communication forms (oral, graphic, written) and digital technologies</p>	<p><b>Year 5-6</b></p> <p><b>HISTORY</b> Sequence historical people and events</p> <p>Develop texts, particularly narratives and descriptions, which incorporate source materials</p> <p>Use a range of communication forms (oral, graphic, written) and digital</p>	<p><b>Year 7-8</b></p> <p><b>HISTORY</b> Sequence historical events, developments and periods</p> <p>Draw conclusions about the usefulness of sources</p> <p>Develop texts, particularly descriptions and explanations that use evidence from a range</p>	<p><b>Year 9-10</b></p> <p><b>HISTORY</b> Use chronological sequencing to demonstrate the relationship between events and developments in different periods and places</p> <p>Develop texts, particularly descriptions and discussions that use</p>

	<b>technologies</b>		<b>technologies</b>	<b>of sources that are acknowledged</b>  <b>Use a range of communication forms (oral, graphic, written) and digital technologies</b>	<b>evidence from a range of sources that are referenced</b>  <b>Select and use a range of communication forms (oral, graphic, written) and digital technologies</b>
	<b>F – Year 2</b>  <b>SCIENCE</b> <b>Share observations and ideas</b>  <b>Represent and communicate observations and ideas in a variety of ways such as oral and written language, drawing and role play</b>  <b>Use a range of methods to sort information, including drawings and provided tables</b>	<b>Year 3-4</b>  <b>SCIENCE</b> <b>Represent and communicate ideas and findings in a variety of ways such as diagrams, physical representations and simple reports</b>	<b>Year 5-6</b>  <b>SCIENCE</b> <b>Communicate ideas, explanations and processes in a variety of ways, including multi-modal texts</b>	<b>Year 7-8</b>  <b>SCIENCE</b> <b>Communicate ideas, findings and solutions to problems using scientific language and representations using digital technologies as appropriate</b>	<b>Year 9-10</b>  <b>SCIENCE</b> <b>Communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language, conventions and representations</b>

	F-Year 2	Year 3-4	Year 5-6	Year 7-8	Year 9-10
	<p><b>GEOGRAPHY</b> Represent data and the location of places and their features by constructing tables, plans and labelled maps</p> <p>Draw conclusions based on discussions of observations</p> <p>Draw conclusions based on the interpretation of geographical information sorted into categories</p> <p>Present information using everyday language to describe location and direction</p> <p>Present findings in a range of communication forms, for example, written, oral, digital and visual, and describe the direction and location of places, using terms such as north,</p>	<p><b>GEOGRAPHY</b> Represent data by constructing tables and graphs</p> <p>Represent the location of places and their features by constructing large-scale maps that conform to cartographic conventions including scale, legend, title, and north point, and describe their location using simple grid references, compass direction and distance</p> <p>Interpret geographical data to identify distributions and patterns and draw conclusions</p> <p>Present findings in a</p>	<p><b>GEOGRAPHY</b> Evaluate sources for their usefulness, and represent data in different forms, for example, maps, plans, graphs, tables, sketches and diagrams</p> <p>Represent the location and features of places and different types of geographical information by constructing large-scale and small-scale maps that conform to cartographic conventions including border, source, scale, legend, title and north point, using spatial technologies as appropriate</p> <p>Interpret geographical data and other information using digital and spatial</p>	<p><b>GEOGRAPHY</b> Evaluate sources for their reliability and usefulness and represent data in a range of appropriate forms, for example, climate graphs, compound column graphs, population pyramids, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies</p> <p>Represent the spatial distribution of different types of geographical phenomena by constructing appropriate maps at different scales that conform to cartographic conventions, using spatial technologies as</p>	<p><b>GEOGRAPHY</b> Evaluate sources for their reliability, bias and Usefulness, and represent multi-variable data in a range of appropriate forms, for example, scatter plots, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies</p> <p>Represent the spatial distribution of geographical phenomena by constructing special purpose maps that conform to cartographic conventions, using spatial technologies as appropriate</p>

	<p>south, opposite, near, far</p>	<p>range of communication forms, for example, written, oral, digital, graphic, tabular and visual, and use geographical terminology</p>	<p>technologies as appropriate, and identify spatial distributions, patterns and trends, and infer relationships to draw conclusions</p> <p>Present findings and ideas in a range of communication forms, for example, written, oral, digital, graphic, tabular, visual and maps, using geographical terminology and digital technologies as appropriate</p>	<p>appropriate</p> <p>Analyse geographical data and other information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to identify and propose explanations for spatial distributions, patterns and trends and infer relationships</p> <p>Apply geographical concepts to draw conclusions based on the analysis of the data and information collected</p> <p>Present findings, arguments and ideas in a range of communication forms selected to suit a particular audience and purpose, using geographical</p>	<p>Evaluate multi-variable data and other geographical information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to make generalisations and inferences, propose explanations for patterns, trends, relationships and anomalies, and predict outcomes</p> <p>Apply geographical concepts to synthesise information from various sources and draw conclusions based on the analysis of data and information, taking into account alternative</p>
--	-----------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

				terminology and digital technologies as appropriate	points of view Present findings, arguments and explanations in a range of appropriate communication forms, selected for their effectiveness and to suit audience and purpose, using relevant geographical terminology and digital technologies as appropriate
	<b>F-Year 2</b> Not applicable	<b>Year 3-4</b> Not applicable	<b>Year 5-6</b> <b>ECONOMICS &amp; BUSINESS</b> Sort data and information into categories  Present findings in an appropriate format using economics and business terms, and reflect on the possible effects of decisions	<b>Year 7-8</b> <b>ECONOMICS &amp; BUSINESS</b> Interpret data and information displayed in different formats to identify relationships and trends  Present evidence-based conclusions using economics and business language	<b>Year 9-10</b> <b>ECONOMICS &amp; BUSINESS</b> Analyse data and information in different formats to explain cause and effect relationships, make predications and illustrate alternative perspectives

				and concepts in a range of appropriate formats, and reflect on the consequences of alternative actions	Present reasoned arguments and evidence-based conclusions in a range of appropriate formats using economics and business conventions, language and concepts
	<b>F-Year 2</b>  <b>Not applicable</b>	<b>Year 3-4</b>  <b>CIVICS &amp; CITIZENSHIP</b>  Distinguish facts from opinion in relation to civics and citizenship topics and issues  Use information to develop a point of view  Present ideas and opinions on civics and citizenship and issues using civics and citizenship terms	<b>Year 5-6</b>  <b>CIVICS &amp; CITIZENSHIP</b>  Identify over-generalised statements in relation to civics and citizenship topics and issues  Use and evaluate a range of information to develop a point of view  Present civics and citizenship ideas and viewpoints for a particular purpose using civics and citizenship terms and	<b>Year 7-8</b>  <b>CIVICS &amp; CITIZENSHIP</b>  Critically analyse information and ideas from a range of sources in relation to civics and citizenship topics and issues  Present evidence-based civics and citizenship arguments using subject-specific language	<b>Year 9-10</b>  <b>CIVICS &amp; CITIZENSHIP</b>  Critically evaluate information and ideas from a range of sources in relation to civics and citizenship topics and issues  Account for different interpretations and points of view  Present evidence-based civics and citizenship arguments using subject-specific language

			concepts		
	<p><b>F-Year 2</b></p> <p><b>DESIGN &amp; TECHNOLOGIES</b> Visualise, generate, develop and communicate design ideas through describing, drawing and modelling</p> <p>Use materials, components, tools, equipment and techniques to safely make designed solutions</p>	<p><b>Year 3-4</b></p> <p><b>DESIGN &amp; TECHNOLOGIES</b> Generate, develop, and communicate design ideas and decisions using technical terms and graphical representation techniques</p> <p>Select and use materials, components, tools and equipment using safe work practices to make designed solutions</p>	<p><b>Year 5-6</b></p> <p><b>DESIGN &amp; TECHNOLOGIES</b> Generate, develop, communicate and document design ideas and processes for audiences using appropriate technical terms and graphical representation techniques</p> <p>Apply safe procedure when using a variety of materials, components, tools, equipment and techniques to make designed solutions</p>	<p><b>Year 7-8</b></p> <p><b>DESIGN &amp; TECHNOLOGIES</b> Generate, develop, test and communicate design ideas, plans and processes for various audiences using appropriate technical terms and technologies including graphical representation techniques</p> <p>Effectively and safely use a broad range of materials, components, tools, equipment and techniques to make designed solutions</p>	<p><b>Year 9-10</b></p> <p><b>DESIGN &amp; TECHNOLOGIES</b> Apply design thinking, creativity, innovation and enterprise skills to develop, modify and communicate design ideas of increasing sophistication</p> <p>Work flexibly to safely test, select, justify and use appropriate technologies and processes to make designed solutions</p>

	F-Year 2	Year 3-4	Year 5-6	Year 7-8	Year 9-10
	<p><b>DIGITAL TECHNOLOGIES</b> Collect, explore and sort data, and use digital systems to present the data creatively</p> <p>Work with others to create and organise ideas and information using information systems, and share these with known people in safe online environments</p>	<p><b>DIGITAL TECHNOLOGIES</b> Collect, access and present different types of data using simple software to create information and solve problems</p> <p>Work with others to plan the creation and communication of ideas and information safely, applying agreed ethical and social protocols</p>	<p><b>DIGITAL TECHNOLOGIES</b> Acquire, store and validate different types of data and use a range of commonly available software to interpret and visualise data in context to create information</p> <p>Design a user interface for a digital system, generating and considering alternative designs</p> <p>Manage the creation and communication of ideas and information including online collaborative projects, applying agreed ethical, social and technical protocols</p>	<p><b>DIGITAL TECHNOLOGIES</b> Analyse and visualise data using a range of software to create information, and use structured data to model objects or events</p> <p>Design the user experience of a digital system, generating, evaluating and communicating alternative designs</p> <p>Create and communicate interactive ideas and information collaboratively online, taking into account social contexts</p> <p>Plan and manage projects, including tasks, time and other resources required, considering safety and sustainability</p>	<p><b>DIGITAL TECHNOLOGIES</b> Analyse and visualise data to create information, and address complex problems, and model processes, entities and their relationships using structured data</p> <p>Design the user experience of a digital system, evaluating alternative designs against criteria including functionality, accessibility, usability, and aesthetics</p> <p>Create interactive solutions for sharing ideas and information online, taking into account social contexts and legal responsibilities</p> <p>Plan and manage</p>



					projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability
<b>F-Year 2</b>	<b>Year 3-4</b>	<b>Year 5-6</b>	<b>Year 7-8</b>	<b>Year 9-10</b>	
<p><b>ICT</b> Recognise ownership over their own digital work</p> <p>Recognise ownership of digital products that others produce and that what they create or provide can be used or misused by others</p> <p>Follow class rules when sharing personal information with known audiences and demonstrate an awareness of applying social protocols with using ICT to communicate</p> <p>Use ICT to prepare simple plans to find</p>	<p><b>ICT</b> Acknowledge when they use digital products created by someone else, and start to indicate the source</p> <p>Apply standard guidelines and take action to avoid the common dangers to personal security when using ICT and apply appropriate basic social protocols when using ICT to communicate with unknown audiences</p> <p>Use ICT to plan an information search or generation of information,</p>	<p><b>ICT</b> Identify the legal obligations regarding the ownership and use of digital products and apply some referencing conventions</p> <p>Identify the risks to identity, privacy and emotional safety for themselves with using ICT and apply generally accepted social protocols when sharing information in online environments, taking into account different social and cultural contexts</p> <p>Use a range of ICT to identify and represent</p>	<p><b>ICT</b> Apply practices that comply with legal obligations regarding the ownership and use of digital products resources.</p> <p>Identify and value the rights to identity, privacy and emotional safety for themselves and others with using ICT and apply generally accepted social protocols when using ICT to collaborate with local and global communities</p> <p>Use a range of ICT to analyse information in terms of implicit</p>	<p><b>ICT</b> Identify and describe ethical dilemmas and consciously apply practices that protect intellectual property.</p> <p>Independently apply appropriate strategies protect rights, identity, privacy and emotional safety of others with using ICT, and discriminate between protocols suitable for different communication tools when collaborating with local and global communities</p> <p>Select and use a range of ICT independently and</p>	

	<p>solutions or answers to questions</p> <p>Experiment with ICT as a creative tool to generate simple solutions, modifications or data representations for particular audiences or purposes</p> <p>Use purposefully selected ICT tools safely to share and exchange information with appropriate local audiences</p> <p>Understand that computer mediated communications may be received later by the receiver</p>	<p>recognising some pattern within the information</p> <p>Use ICT to generate ideas and plan solutions</p> <p>Create and modify simple digital solutions, creative outputs or data representation/transformation for particular purposes</p> <p>Use appropriate ICT tools safely to share and exchange information with appropriate known audiences</p> <p>Understand that computer mediated communications are directed to an audience for a purpose</p>	<p>patterns in sets of information to pose questions to guide searching for, or generating, further information</p> <p>Assess the suitability of data or information using a range of appropriate given criteria</p> <p>Use ICT effectively to record ideas, represent thinking and plan solutions</p> <p>Independently or collaboratively create and modify digital solutions, creative outputs or data representation/transformation for particular audiences and purposes</p> <p>Select and use appropriate ICT tools safely to share and exchange information and to safely</p>	<p>patterns and structures as a basis to plan an information search or generation</p> <p>Assess the suitability of data or information using appropriate own criteria</p> <p>Use appropriate ICT to collaboratively generate ideas and develop plans</p> <p>Design and modify simple digital solutions, or multimodal creative outputs or data transformations for particular audiences and purposes following recognised conventions</p> <p>Select and use appropriate ICT tools safely to lead groups in sharing and exchanging information, and taking part in online</p>	<p>collaboratively, analyse information to frame questions and plan search strategies or data generation</p> <p>Develop and use criteria systemically to evaluate the quality, suitability and credibility of located data or information and sources</p> <p>Select and use ICT to articulate ideas and concepts, and plan the development of complex solutions</p> <p>Design, modify and manage complex digital solutions, or multimodal creative outputs or data transformations for a range of audiences and purposes</p> <p>Select and use a range of ICT tools efficiently and safely to share and</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

			<p>collaborate with others</p> <p>Understand that particular forms of computer mediated communications and tools are suited to synchronous or asynchronous and one-to-one or group communications</p>	<p>projects or active collaborations with appropriate global audiences</p> <p>Understand that there are various methods of collaboration through computer mediated communications that vary in form and control</p>	<p>exchange information, and to collaboratively and purposefully construct knowledge</p> <p>Understand that computer mediated communications have advantages and disadvantages in supporting active participation in a community of practice and the management of collaboration on digital materials</p>
	<p><b>F-Year 2</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Identify and describe familiar information and ideas during a discussion or investigation</p> <p>Organise information based on similar or relevant ideas from several sources</p> <p>Use imagination to view</p>	<p><b>Year 3-4</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Expand on known ideas to create new and imaginative combinations</p> <p>Explore situations using creative thinking strategies to propose a range of alternatives</p> <p>Experiment with a</p>	<p><b>Year 5-6</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Identify and clarify relevant information and prioritise ideas</p> <p>Analyse, condense and combine relevant information from multiple sources</p> <p>Combine ideas in a variety of ways and from a range of</p>	<p><b>Year 7-8</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Clarify information and ideas from texts or images when exploring challenging issues</p> <p>Critically analyse information and evidence according to criteria such as validity and relevance</p>	<p><b>Year 9-10</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Clarify complex information and ideas drawn from a range of sources</p> <p>Critically analyse independently sources information to determine bias and reliability</p> <p>Create and connect</p>

	<p>or create things in new ways and connect two things that seem different</p> <p>Suggest alternative and creative ways to approach a given situation or task</p> <p>Predict what might happen in a given situation and when putting ideas into action</p> <p>Build on what they know to create ideas and possibilities in ways that are new to them</p> <p>Identify and compare creative ideas to think broadly about a given situation or problems</p> <p>Investigate options and predict possible outcomes when putting ideas into action</p> <p>Connect information from one setting to another</p>	<p>range of options when seeking solutions and putting ideas into action</p> <p>Transfer and apply information in one setting to enrich another</p> <p>Draw on prior knowledge and use evidence when choosing a course of action or drawing conclusions</p>	<p>sources to create new possibilities</p> <p>Identify situations where current approaches do not work, challenge existing ideas and generate alternative solutions</p> <p>Assess and test options to identify the most effective solution and to put ideas into action</p> <p>Apply knowledge gained from one context to another unrelated context and identify new meaning</p> <p>Scrutinise ideas or concepts, test conclusions and modify actions when designing a course of action</p>	<p>Draw parallels between known and new ideas to create new ways of achieving goals</p> <p>Generate alternatives and innovative solutions, and adapt ideas, including when information is limited or conflicting</p> <p>Predict possibilities, and identify and test consequences when seeking solutions and putting ideas into action</p> <p>Justify reasons for decisions when transferring information to similar and different contexts</p> <p>Differentiate the components of a designed course of action and tolerate ambiguities when drawing conclusions</p>	<p>complex ideas using imagery, analogies and symbolism</p> <p>Speculate on creative options to modify ideas when circumstances change</p> <p>Assess risks and explain contingencies, taking account of a range of perspectives, when seeking solutions and putting complex ideas into action</p> <p>Identify, plan and justify transference of knowledge to new concepts</p> <p>Use logical and abstract thinking to analyse synthesise complex information to inform a course of action</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>Use information from a previous experience to inform a new idea</p> <p>Share their thinking about possible courses of action</p> <p>Identify alternative courses of action or possible conclusions when presented with new information</p>				
<p><b>Evaluate</b></p> <p>Evaluate achievement of learning goals Reflect on content Reflect on process</p>	<p><b>F-Year 2</b></p> <p><b>SCIENCE</b> Compare observations with those of others</p>	<p><b>Year 3-4</b></p> <p><b>SCIENCE</b> Reflect on the investigation, including whether a test was fair or not</p>	<p><b>Year 5-6</b></p> <p><b>SCIENCE</b> Suggest improvements to the methods used to investigate a question or solve a problem</p>	<p><b>Year 7-8</b></p> <p><b>SCIENCE</b> Reflect on the method used to investigate a question or solve a problem, including evaluating the quality of the data collected, and identify improvements to the method</p> <p>Use scientific knowledge and findings from investigations to evaluate claims</p>	<p><b>Year 9-10</b></p> <p><b>SCIENCE</b> Evaluate conclusions, including identifying sources of uncertainty and possible alternative explanations, and describe specific ways to improve the quality of the data</p>

	<p><b>F-Year 2</b></p> <p><b>GEOGRAPHY</b> Reflect on their learning to suggest ways that they can look after a familiar place</p> <p>Reflect on their learning and suggest responses to their findings</p>	<p><b>Year 3-4</b></p> <p><b>GEOGRAPHY</b> Reflect on their learning to propose individual action in response to a contemporary geographical challenge and identify the expected effects of the proposal</p>	<p><b>Year 5-6</b></p> <p><b>GEOGRAPHY</b> Reflect on their learning to propose individual and collective action in response to a contemporary geographical challenge and describe the expected effects of their proposal on different groups of people</p>	<p><b>Year 7-8</b></p> <p><b>GEOGRAPHY</b> Reflect on their learning to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations, and predict the expected outcomes of their proposal</p>	<p><b>Year 9-10</b></p> <p><b>GEOGRAPHY</b> Reflect on and evaluate the findings of the inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations; and explain the predicted outcomes and consequences of their proposal</p>
	<p><b>F-Year 2</b></p> <p>Not applicable</p>	<p><b>Year 3-4</b></p> <p>Not applicable</p>	<p><b>Year 5-6</b></p> <p><b>ECONOMICS &amp; BUSINESS</b> Present findings in an appropriate format using economics and business terms, and reflect on the possible effects of decisions</p>	<p><b>Year 7-8</b></p> <p><b>ECONOMICS &amp; BUSINESS</b> Present evidence-based conclusions using economics and business language and concepts in a range of appropriate formats, and reflect</p>	<p><b>Year 9-10</b></p> <p><b>ECONOMICS &amp; BUSINESS</b> Reflect on the intended and unintended consequences of economic and business decisions</p>

				on the consequences of alternative actions	
<b>F-Year 2</b>  Not applicable	<b>Year 3-4</b>  <b>CIVICS &amp; CITIZENSHIP</b> Reflect on their cultural identity and how it might be similar and different from others	<b>Year 5-6</b>  <b>CIVICS &amp; CITIZENSHIP</b> Reflect on personal roles and actions as a citizen in the school and in the community	<b>Year 7-8</b>  <b>CIVICS &amp; CITIZENSHIP</b> Reflect on their role as a citizen in Australia's democracy	<b>Year 9-10</b>  <b>CIVICS &amp; CITIZENSHIP</b> Reflect on their role as a citizen in Australian, regional and global contexts	
<b>F-Year 2</b>  <b>DESIGN &amp; TECHNOLOGIES</b> Use personal preferences to evaluate the success of design ideas, processes and solutions including their care for environment	<b>Year 3-4</b>  <b>DESIGN &amp; TECHNOLOGIES</b> Evaluate design ideas, processes and solutions based on criteria for success developed with guidance and including care for the environment	<b>Year 5-6</b>  <b>DESIGN &amp; TECHNOLOGIES</b> Negotiate criteria for success that include consideration of sustainability to evaluate design ideas, processes and solutions	<b>Year 7-8</b>  <b>DESIGN &amp; TECHNOLOGIES</b> Independently develop criteria for success to assess design ideas, processes and solutions and their sustainability	<b>Year 9-10</b>  <b>DESIGN &amp; TECHNOLOGIES</b> Evaluate design ideas, processes and solutions against comprehensive criteria for success recognising the need for sustainability	
<b>F-Year 2</b>  <b>ICT</b> Identify how they use ICT in multiple ways on multiple devices  Identify how ICT is used	<b>Year 3-4</b>  <b>ICT</b> Identify the value and role of ICT use at home and school  Explain why located	<b>Year 5-6</b>  <b>ICT</b> Explain the main uses of ICT at school, home and in the local community, and recognise its potential	<b>Year 7-8</b>  <b>ICT</b> Explain the benefits and risks of the use of ICT for particular people in work and home environments	<b>Year 9-10</b>  <b>ICT</b> Assess the impact of ICT in the workplace in society, and speculate on its role in the future and how	

	<p>at home and at school</p> <p>Explain how located data or information was used</p> <p>Explain the usefulness of located data or information</p>	<p>data or information was selected</p>	<p>positive and negative impacts on their lives</p>		<p>they can influence its use</p>
	<p><b>F-Year 2</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Describe what they are thinking and give reasons why</p> <p>Describe the thinking strategies used in given situations and tasks</p> <p>Identify the main elements of the steps in a thinking process</p> <p>Outline the details and sequence in a whole task and separate it into workable parts</p> <p>Identify the thinking used to solve problems in given situations</p>	<p><b>Year 3-4</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Reflect on, explain and check the processes used to come to conclusions</p> <p>Identify pertinent information in an investigation and separate into smaller parts or ideas</p> <p>Identify and apply appropriate reasoning and thinking strategies for particular outcomes</p> <p>Explain and justify ideas and outcomes</p>	<p><b>Year 5-6</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Reflect on assumptions made, consider reasonable criticism and adjust their thinking if necessary</p> <p>Identify and justify the thinking behind choices they have made</p> <p>Assess whether there is adequate reasoning and evidence to justify a claim, conclusion or outcome</p> <p>Evaluate the effectiveness of ideas, products,</p>	<p><b>Year 7-8</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Assess assumptions in their thinking and invite alternative opinions</p> <p>Evaluate and justify the reasons behind choosing a particular problem-solving strategy</p> <p>Identify gaps in reasoning and missing elements in information</p> <p>Explain intentions and justify ideas, methods and courses of action, an account for expected and</p>	<p><b>Year 9-10</b></p> <p><b>CRITICAL / CREATIVE THINKING</b> Give reasons to support their thinking, and address opposing viewpoints and possible weaknesses in their own positions</p> <p>Balance rational and irrational components of a complex or ambiguous problem to evaluate evidence</p> <p>Analyse reasoning used in finding and applying solutions, and in choice of resources</p> <p>Evaluate the effectiveness of ideas,</p>



	<p><b>Identify reasoning used in choices or actions in specific situations</b></p> <p><b>Check whether they are satisfied with the outcome of tasks or actions</b></p> <p><b>Evaluate whether they have accomplished what they set out to achieve</b></p>		<p><b>performances, methods and courses of action against given criteria</b></p>	<p><b>unexpected outcomes against criteria they have identified</b></p>	<p><b>product and performances and implement courses of action to achieve desired outcomes against criteria they have identified</b></p>
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	----------------------------------------------------------------------------------	-------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------

Source documents

ACARA. (n.d.). *Australian Curriculum: Science*. Australian Curriculum and Assessment Reporting Authority: Sydney. Viewed at <http://www.australiancurriculum.edu.au/science/curriculum/f-10?layout=1>

ACARA. (n.d.). *Australian Curriculum: Humanities and Social Science*. Australian Curriculum and Assessment Reporting Authority: Sydney. Viewed at <http://www.australiancurriculum.edu.au/humanities-and-social-sciences/introduction>

ACARA. (n.d.). *Australian Curriculum: Digital Technologies*. Australian Curriculum and Assessment Reporting Authority: Sydney. Viewed at <http://www.australiancurriculum.edu.au/technologies/digital-technologies/curriculum/f-10?layout=1>

ACARA. (n.d.). *Australian Curriculum: Design and Technologies*. Australian Curriculum and Assessment Reporting Authority: Sydney. Viewed at <http://www.australiancurriculum.edu.au/technologies/design-and-technologies/curriculum/f-10?layout=1>



ACARA. (n.d.) *Critical and creative thinking*. Australian Curriculum and Assessment Reporting Authority: Sydney. Viewed at <http://www.australiancurriculum.edu.au/GeneralCapabilities/Pdf/Critical-and-creative-thinking>

ACARA. (n.d.). *Information and communication technology (ICT) capability*. Australian Curriculum and Assessment Report Authority: Sydney. Viewed at <http://www.australiancurriculum.edu.au/GeneralCapabilities/Pdf/ICT>


Kuhlthau, C.C., Maniotes, L.K. and Gaspari, A.K. (2012). *Guided Inquiry design: a framework for inquiry in your school*. Santa Barbara, California: Libraries Unlimited.



## Guided Inquiry Design Framework: Core skills and tools

Core skills in Guided Inquiry Design Framework	Inquiry community in Guided Inquiry Design Framework	Tools <a href="http://eduwebinar.com.au/web-tools-to-support-inquiry-based-learning">http://eduwebinar.com.au/web-tools-to-support-inquiry-based-learning</a>
<p><b><i>Open – Students</i></b></p> <p>Ask 6 Ws (what, when, where, which, who, why)            Define            Describe            Find            List            Name            Recall            Recognise            Remember            Retrieve            Understand inquiry process            Unpack task</p>	<p><b><i>Open – Inquiry community</i></b></p> <p>Engage            Highlight concepts            Introduce key inquiry questions            Invite to inquiry            Open minds            Set tone and direction            Spark conversation            Stimulate curiosity</p> <div> </div>	<p>Bubbl.us  <a href="https://bubbl.us/">https://bubbl.us/</a>            Lino  <a href="http://en.linoit.com/">http://en.linoit.com/</a>            Mindmeister  <a href="http://www.mindmeister.com/">http://www.mindmeister.com/</a>            Padlet  <a href="http://padlet.com/">http://padlet.com/</a>            Poll Everywhere  <a href="http://www.polleverywhere.com/k12-student-response-system">http://www.polleverywhere.com/k12-student-response-system</a>            Popplet  <a href="http://popplet.com/">http://popplet.com/</a>            Spiderscribe  <a href="http://www.spiderscribe.net/">http://www.spiderscribe.net/</a>            Stoodle  <a href="http://stoodle.ck12.org/">http://stoodle.ck12.org/</a>            Stormboard  <a href="http://stormboard.com/">http://stormboard.com/</a>            TED-Ed  <a href="http://ed.ted.com/">http://ed.ted.com/</a>            Text2MindMap  <a href="http://www.text2mindmap.com/">http://www.text2mindmap.com/</a>            Youtube  <a href="http://www.youtube.com/">http://www.youtube.com/</a>            Socrative  <a href="http://socrative.com/">http://socrative.com/</a></p>

<p><b>Immerse - Students</b></p> <p>Brainstorm Choose Collaborate Discuss Exchange Use prior knowledge</p>	<p><b>Immerse – Inquiry community</b></p> <p>Build background Collaborate Connect to content Converse Discover interesting ideas Evoke prior knowledge Find third space</p> 	<p>eduCanon <a href="http://www.educanon.com/">http://www.educanon.com/</a> National Geographic Videos <a href="http://video.nationalgeographic.com.au/">http://video.nationalgeographic.com.au/</a> TED-Ed <a href="http://ed.ted.com/">http://ed.ted.com/</a> Youtube <a href="http://www.youtube.com/">http://www.youtube.com/</a></p> <p>Virtual field trips</p>
<p><b>Explore - Students</b></p> <p>Browse Categorise Chart Choose Conceptualise Develop/reject search terms Formulate Journal/Log: Reflect on learning, take notes Locate Observe Preliminary searches Scan Search broadly Skim</p>	<p><b>Explore – Inquiry community</b></p> <p>Collaborate Converse Dip in Explore interesting ideas Look around Skim variety of information</p> 	<p>Bibme <a href="http://www.bibme.org/">http://www.bibme.org/</a> Compfight <a href="http://compfight.com/">http://compfight.com/</a> DuckDuckGo <a href="http://duckduckgo.com/">http://duckduckgo.com/</a> Easybib <a href="http://www.easybib.com">www.easybib.com</a> GoGooligans.com <a href="http://www.lures.info/childrens_search/gogooligans.html">http://www.lures.info/childrens_search/gogooligans.html</a> Infotopia <a href="http://www.infotopia.info/">http://www.infotopia.info/</a> InstaGrok <a href="http://www.instagrok.com/">http://www.instagrok.com/</a></p>

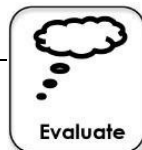
		<p>Kidtopia  <a href="http://www.kidtopia.info/">http://www.kidtopia.info/</a>  Mashpedia  <a href="http://www.mashpedia.com/">http://www.mashpedia.com/</a>  Photobucket  <a href="http://beta.photobucket.com/">http://beta.photobucket.com/</a>  Quintura for kids  <a href="http://quinturakids.com/">http://quinturakids.com/</a>  Search-cube  <a href="http://search-cube.com/">http://search-cube.com/</a>  Simple Wikipedia  <a href="http://simple.wikipedia.org/wiki/Main_Page">http://simple.wikipedia.org/wiki/Main_Page</a>  SlimeKids  <a href="http://www.slimekids.com/search-engines/">http://www.slimekids.com/search-engines/</a>  WikiSummarizer  <a href="http://www.wikisummarizer.com/">http://www.wikisummarizer.com/</a></p>
<p><b>Identify – Students</b></p> <p>Chart  Choose  Experiment with search terms  Formulate inquiry question  Hypothesise  Investigate  Journal: Reflect on learning, take notes  Log – Keep bibliographic details  Plan  Search widely  Suggest</p>	<p><b>Identify – Inquiry community</b></p> <p>Identify inquiry question  Collaborate  Converse  Decide direction  Form a focus  Frame inquiry process  Pause and ponder  Question focus formulation  Think/Pair/Share</p> 	<p>Knowledge Compass  <a href="http://knowledgecompass.weebly.com/">http://knowledgecompass.weebly.com/</a></p>

<p><b>Gather – Students</b></p> <ul style="list-style-type: none"> <li>Capture</li> <li>Chart</li> <li>Classify</li> <li>Collect</li> <li>Compare</li> <li>Compose</li> <li>Comprehensive searching</li> <li>Evaluate</li> <li>Locate</li> <li>Measure</li> <li>Organise</li> <li>Record</li> <li>Retrieve</li> <li>Select</li> <li>Summarise</li> </ul>	<p><b>Gather – Inquiry community</b></p> <ul style="list-style-type: none"> <li>Cluster ideas</li> <li>Collect detailed information from a variety of sources</li> <li>Gather important information</li> <li>Go broad</li> <li>Go deep</li> </ul> <div style="text-align: center;">  </div>	<ul style="list-style-type: none"> <li>Bibme <a href="http://www.bibme.org/">http://www.bibme.org/</a></li> <li>Compfight <a href="http://compfight.com/">http://compfight.com/</a></li> <li>Diigo <a href="http://www.diigo.com/">http://www.diigo.com/</a></li> <li>Easybib: <a href="http://www.easybib.com">www.easybib.com</a></li> <li>Evernote <a href="http://evernote.com/">http://evernote.com/</a></li> <li>Kaboompics <a href="http://kaboompics.com">http://kaboompics.com</a></li> <li>Lino <a href="http://en.linoit.com/">http://en.linoit.com/</a></li> <li>Netvibes <a href="http://www.netvibes.com/en">http://www.netvibes.com/en</a></li> <li>Pearlree <a href="http://www.pearltrees.com/">http://www.pearltrees.com/</a></li> <li>Padlet <a href="http://padlet.com/">http://padlet.com/</a></li> <li>Photobucket <a href="http://beta.photobucket.com/">http://beta.photobucket.com/</a></li> <li>Pics4Learning <a href="http://www.pics4learning.com/">http://www.pics4learning.com/</a></li> <li>Poll daddy <a href="http://poldaddy.com/">http://poldaddy.com/</a></li> <li>QR codes <a href="http://qrcode.kaywa.com/">http://qrcode.kaywa.com/</a></li> <li>ScoopIt <a href="http://www.scoop.it/">http://www.scoop.it/</a></li> <li>sitehoover <a href="http://www.sitehoover.com/en/">http://www.sitehoover.com/en/</a></li> </ul>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p>Spiderscrib  <a href="http://www.spiderscribe.net/">http://www.spiderscribe.net/</a>          Survey Monkey  <a href="http://www.surveymonkey.com/">http://www.surveymonkey.com/</a></p>
<p><b>Create / Share - Students</b></p> <p>Articulate          Build          Categorise          Chart          Choose          Combine          Communicate          Compose          Conclude          Construct          Create          Design          Develop          Draw          Exchange          Experiment          Format          Infer          Integrate          Interpret          Invent          Make          Organise          Present          Produce          Represent          Sequence</p>	<p><b>Create / Share – Inquiry community</b></p> <p>Create to communicate          Go beyond facts to make meaning          Learn from each other          Reflect on learning          Share learning          Tell their story</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<p>Animoto  <a href="http://animoto.com/">http://animoto.com/</a>          Audacity  <a href="http://audacity.sourceforge.net/">http://audacity.sourceforge.net/</a>          AudioBoo  <a href="http://audioboo.fm/">http://audioboo.fm/</a>          Blabberize  <a href="http://blabberize.com/">http://blabberize.com/</a>          Blogger  <a href="http://www.blogger.com/">http://www.blogger.com/</a>          Bookbuilder  <a href="http://bookbuilder.cast.org/">http://bookbuilder.cast.org/</a>          Canva  <a href="https://www.canva.com/">https://www.canva.com/</a>          easel.ly  <a href="http://www.easel.ly/">http://www.easel.ly/</a>          Flipboard  <a href="https://flipboard.com">https://flipboard.com</a>          Glogster  <a href="http://edu.glogster.com/">http://edu.glogster.com/</a>          GoAnimate for Schools  <a href="https://goanimate4schools.com/public_index">https://goanimate4schools.com/public_index</a>          Haiku Deck  <a href="https://www.haikudeck.com/">https://www.haikudeck.com/</a>          infogr.am  <a href="http://www.infogr.am/">http://www.infogr.am/</a>          Issuu  <a href="http://issuu.com/">http://issuu.com/</a></p>

<p>Share Simplify Synthesise</p>		<p>Jing <a href="http://www.techsmith.com/jing.html">http://www.techsmith.com/jing.html</a> Learnist <a href="http://learni.st/">http://learni.st/</a> Livebinders <a href="http://www.livebinders.com/">http://www.livebinders.com/</a> morgueFile <a href="http://www.morguefile.com/archive">http://www.morguefile.com/archive</a> Ocenaudio <a href="http://www.ocenaudio.com.br/">http://www.ocenaudio.com.br/</a> PB Works <a href="http://www.pbworks.com/">http://www.pbworks.com/</a> Photo Peach <a href="http://photopeach.com/">http://photopeach.com/</a> Piktochart <a href="http://piktochart.com/">http://piktochart.com/</a> Pixton <a href="http://www.pixton.com/schools/overview">http://www.pixton.com/schools/overview</a> Podbean <a href="http://www.podbean.com/">http://www.podbean.com/</a> PosterMaker App <a href="https://itunes.apple.com/ca/app/id423574589?mt=8">https://itunes.apple.com/ca/app/id423574589?mt=8</a> Prezi <a href="http://prezi.com/">http://prezi.com/</a> PresentationTube <a href="http://presentationtube.com/">http://presentationtube.com/</a> Scribe <a href="http://www.scribd.com/">http://www.scribd.com/</a> Smilebox Teacher's Toolbox <a href="http://media.smilebox.com/teachers/welcome">http://media.smilebox.com/teachers/welcome</a></p>
------------------------------------------	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p>Smore for educators  <a href="https://www.smore.com/educators">https://www.smore.com/educators</a>  Stormboard  <a href="http://stormboard.com/">http://stormboard.com/</a>  Storyboard generator  <a href="http://generator.acmi.net.au/storyboard">http://generator.acmi.net.au/storyboard</a>  Tagul  <a href="http://tagul.com/">http://tagul.com/</a>  Twiddla  <a href="http://www.twiddla.com/">http://www.twiddla.com/</a>  Vimeo  <a href="http://vimeo.com/">http://vimeo.com/</a>  Voki  <a href="http://www.voki.com/">http://www.voki.com/</a>  Weebly for education  <a href="http://education.weebly.com/">http://education.weebly.com/</a>  Wikispaces  <a href="http://www.wikispaces.com/">http://www.wikispaces.com/</a>  Wordle  <a href="http://www.wordle.net/">http://www.wordle.net/</a>  WordPress  <a href="https://wordpress.com/">https://wordpress.com/</a>  xtranormal  <a href="http://www.xtranormal.com/">http://www.xtranormal.com/</a></p>
<p><b>Evaluate – Student</b></p> <p>Assess  Check  Critique  Evaluate  Feedback  Improve  Peer assess</p>	<p><b>Evaluate – Inquiry community</b></p> <p>Celebrate and showcase learning  Converse  Evaluate achievement of learning goals  Reflect on content  Reflect on process</p>	<p>Edmodo  <a href="http://www.edmodo.com/">http://www.edmodo.com/</a>  Kaizena  <a href="https://kaizena.com/">https://kaizena.com/</a>  iRubric  <a href="http://www.rcampus.com/indexrubric.cfm">http://www.rcampus.com/indexrubric.cfm</a>  Penzu classroom  <a href="http://penzu.com/content/products/classroom">http://penzu.com/content/products/classroom</a></p>





Reflect Self-assess Suggest Test		Socrative <a href="http://socrative.com/">http://socrative.com/</a> Stoodle <a href="http://stoodle.ck12.org/">http://stoodle.ck12.org/</a> VoiceThread <a href="http://voicethread.com/">http://voicethread.com/</a>
-------------------------------------------	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------