

ICT matrix

Defining

Early Stage 1	Stage 1	Stage 2	Stage 3
<p>Students suggest questions for investigation, with teacher assistance, in response to directed discussion on a given topic using an audio and/or visual stimulus.</p> <p>Information literacy specific skills required. Students:</p> <ul style="list-style-type: none"> • know the difference between a statement and a question • use relevant questions to ask for instructions • are able to talk about a given topic, suggesting ideas and asking relevant questions • listen to and follow single step instructions • can join in brainstorming sessions. 	<p>Students select from a range of well-defined topics, participate in teacher led brainstorming, focus question development and clustering of ideas.</p> <p>Information literacy specific skills required. Students:</p> <ul style="list-style-type: none"> • asks questions to seek clarification of task • participates in class/group brainstorming activities • understands the purpose of a task • is able to place simple facts in correct categories. 	<p>Students select from within a broad topic and narrows the topic with assistance; participate in teacher directed group clustering of ideas and formulate some focus questions and a simple search strategy.</p> <p>Information literacy specific skills required. Students:</p> <ul style="list-style-type: none"> • can formulate some focus questions in pairs or groups • is able to suggest possible search words appropriate to a given topic e.g. insects (bees, ants) diet (food, eating) • identifies & understands the purpose of the six steps of the information process and understands that they are cyclical • understands the purpose and formulation of a concept map/flow chart; can plan some headings to be used for information gathering. 	<p>Students select from within a given topic area and narrow a topic with guidelines and assistance where needed. Independently, or with peers, brainstorm and cluster ideas to develop focus questions and devise a search strategy.</p> <p>Information literacy specific skills required. Students:</p> <ul style="list-style-type: none"> • verbalise the purpose of a task and know the text type which would best suit • work independently or in small groups to brainstorm, develop appropriate questions, plan headings.

<p>Students participate in teacher led development of questions in graphic and word-processing formats.</p> <p>ICT specific skills required</p> <ul style="list-style-type: none"> • letter recognition • identify keyboard, mouse, monitor, hard drive • identify cursor • identify desktop and icons • can open and close programs. <p>Possible program/resource <i>Microsoft Word, Kidpix, Crayola make a masterpiece.</i></p>	<p>Students participate in teacher led creation of simple word processed documents containing questions for the task and concept mapping using a graphic format</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> • locates and uses return / enter, space, delete / back, shift, caps lock • uses appropriate terminology – font, upper case, bold, italics <p>Possible program/resource <i>Kidspiration, Microsoft Word.</i></p>	<p>Students develop graphical formats for focus and contributing questions, with teacher assistance.; use tables to outline the research task.</p> <p>ICT specific skills required</p> <ul style="list-style-type: none"> • discriminates in the choice of applications for a given purpose • understands basic terminology of data base-fields, records, files. <p>Possible program/resource <i>Microsoft Office, Inspiration.</i></p>	<p>Students develop concept maps and research outlines using word processors, spreadsheets and/or web pages; develop templates for frameworks.</p> <p>ICT specific skill required:</p> <ul style="list-style-type: none"> • understands terminology: column, row, cell. <p>Possible program/resource <i>Inspiration, Microsoft Word.</i></p>
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Locating

Early Stage 1	Stage 1	Stage 2	Stage 3
Students recognise a number of sources for information.	Students identify and locate resources following a search strategy with	Students locate resources with assistance and modify a search	Students identify and locate a range of resources in the school and wider

<p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • know basic book conventions (front, back, title, pages, left to right of text, illustrations, author) • know that the cover usually indicates content • recognise that there are factual and literary texts • recognise a number of sources for information e.g. books, pictures, posters, signs, CDs, TV, videos, radio, labels, people • are aware of library rules and procedures for borrowing. 	<p>assistance; use author, title and subject entries in the catalogue; identify and use different parts of a text to locate information.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • are able to locate a number of sources for information including software /Internet • can use different parts of a text to locate information e.g. contents page, index, glossary, menu • can locate fiction, nonfiction and reference areas of library • can use the enquiry terminal for simple searches (keyboard skills) • know the alphabet well enough to begin to use a dictionary and simple encyclopedia. 	<p>strategy, using single term catalogue searches.; prejudices the relative worth of a resource; use headings, captions and keywords to locate appropriate information.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • can list a range of print & non-print resources for answering focus question • understands the meaning of the codes used on library data base to find a resource • can make use of headings, captions, key words to locate information in resources • recognises that all information resources on a similar topic are grouped together and given a number which is called a Dewey number • has developed some skimming / scanning techniques to check if a resource will answer any of the formulated questions 	<p>community by independently following a search strategy and using single and combined search terms; survey text headings in resource selections, identifying what is current, relevant and valid; consult yearbooks, newspapers, pamphlets, and magazines.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • use of database to complete subject/keyword/author/title searches • ability to use encyclopedias, atlases, newspapers, Internet to locate information • Dewey number identification • skimming/scanning skills • quick recognition of essential key words • are aware of and understand criteria used to evaluate an information resource: publication date; contents page; index; glossary; captioned illustrations; clear headings; subheadings; diagrams; graphs.
<p>Students participate with the class and teacher in composing emails requesting information.</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> • begins to understand the purpose of the Internet <p>Possible resource: Internet.</p>	<p>Students use an online catalogue and a teacher selected web page to form a simple word query; composes, sends and reads emails to request information and communicate (with teacher assistance); use topic specific multimedia programs to locate teacher directed information.</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> • uses prepared bookmarks • understands structure or purpose of a database • opens and uses a database <p>Possible program/resource: <i>OASIS Library; World Book Encyclopaedia</i> web sites; videos.</p>	<p>Students use online catalogues, simple databases and search engines for information needs; use electronic encyclopaedias and topic specific multimedia programs; use email for information gathering, including sending attachments.</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> • can use library enquiry terminal • can complete a search on appropriate CD-ROMs • can use Internet search engine (with assistance) to locate information using appropriate search words • use and understands the features of a browser (back, forward, stop, search, home buttons, address bar, URL, loading status) • compose and send email under guidelines and with supervision 	<p>Students use search engines and bookmarked sites to locate information; use email and discussion lists to locate information.</p> <p>ICT specific skills required: as for Stage 2</p> <ul style="list-style-type: none"> • open a browser program • bookmark a location • understand and use key words in an advanced search. <p>Possible program/resource <i>Microsoft Internet Explorer, OASIS library, Internet search engines.</i></p>

		<ul style="list-style-type: none">• use <i>find</i> function to search• interpret features of an email inbox• understand features of a new email message• retrieve and reply to email under supervision• send an attachment with an email• locate specific information in a class created database• use and understand hyperlinks/navigation buttons <p>Possible program/resource <i>OASIS Library, Microsoft Encarta, WebsterWorld, email, Microsoft Internet Explorer.</i></p>	
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Selecting

Early Stage 1	Stage 1	Stage 2	Stage 3
<p>Students select main ideas and keywords from factual and literary texts or audio and/or visual source.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • can retell some information gained from listening to factual and literary texts or watching visual images • identify subject matter of pictures in books, CD-ROMs etc. • begin to make appropriate choices when borrowing or when looking for specific topics • can name favourite characters in stories and give reasons. 	<p>Students select main ideas and supporting keywords from more than one source, categorise and record information in lists, picture sequences, grids or concept maps which show the relationship of the ideas to each other and the focus question.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • increased reading ability • match a text to a specific topic • retell the main (key) ideas from texts listened to, read or viewed • sequence ideas placing similar ideas in categories or groups • predict or infer giving reasons for choice of ideas • list some word groups of information about a specific topic. 	<p>Students select and record information relevant to a specific purpose using a notetaking strategy suited to the task; evaluate information in terms of language suitability and currency and compare different formats and sources.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • match resource to topic, use indexes and contents to check suitability • use headings, subheadings or captions in text to locate appropriate sections of information, refer to questions • use keywords, phrases and notes to list several facts from text • interpret basic charts, maps, diagrams (use of keys) • differentiate between fact and opinion. 	<p>Students select and record information from a variety of sources, including magazines, newspapers, pamphlets and reference material; understand the text structure of these materials and use skimming and scanning techniques; select suitable notetaking strategies with assistance.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • skim and scan looking for keywords in text • draw conclusions from a number of resources • extract information from a variety of forms e.g. symbols, icons, graphs, tables, pictures, diagrams • recognise irrelevant material • evaluate resource for credibility, currency, balanced viewpoint.

<p>Students participate in teacher directed development of frameworks for ideas and concept maps using graphics.</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> • select and moves objects using mouse • use freehand drawing tools, pencil, straight and curved lines • select objects with selection tool. <p>Possible program/resource <i>Kidspiration.</i></p>	<p>Students use word processing to develop graphic or text concept maps; include graphic links to develop relationship of ideas.</p> <p>ICT specific skills required</p> <ul style="list-style-type: none"> • select and highlight texts • delete text • use text tools. <p>Possible program/resource <i>Microsoft Word</i>, CD-ROMs, web sites, <i>Kidspiration</i>, <i>Inspiration</i>.</p>	<p>Students use tables, teacher-developed templates and graphic structures as notetaking frameworks, including multimedia developed by students, and information sources.</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> • use keyboard and mouse • change font, size, position, style of text • highlight, cut, paste, copy text and graphics • select menu items from a dropdown menu • insert text. <p>Possible program/resource <i>Microsoft Word</i>, <i>Inspiration</i>, <i>Microsoft Publisher</i>.</p>	<p>Students select information from electronic indexes, full text sources and online services including web based information.</p> <p>ICT specific skills required</p> <ul style="list-style-type: none"> • choose appropriate Internet sites from a search • use criteria to evaluate a suitable site • copy and paste text and graphics from Internet site to word document • interpret data from a simple existing spreadsheet • understand active cell • sort data before selecting. <p>Possible program/resource Internet, CD-ROMs, search engines, <i>Microsoft Office</i>.</p>
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Organising

Early Stage 1	Stage 1	Stage 2	Stage 3
<p>Students contribute to joint construction of texts and create a sequence of visual images to illustrate a procedure.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> sequencing language patterns some common sight words and conventions of print developing phonic skills. 	<p>Students process information by comparing, selecting and combining, with assistance, what is relevant to the task, and organising according to an agreed format.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> note taking sentence construction from notes, use of conjunctions, pronouns, prepositions use of punctuation, capitals, full stops, commas use of frameworks e.g. matrix, pro forma, flowchart, concept map self editing, reading aloud. 	<p>Students process and organise information, with assistance, into sentences, summarise larger units in an appropriate framework (text type), using headings or subheadings; determines what is conflicting and irrelevant.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> use atlas use thesaurus and dictionary have knowledge of appropriate text types, structure and grammatical features have the ability to transform notes into more complex sentences using own language use headings and sub headings to organise information construct paragraphs self edit e.g. revising, editing, proofreading use appropriate spelling, grammar and punctuation. 	<p>Students process information by synthesising and begin to make generalisations with information from opposing viewpoints, taking into account accuracy and appropriateness to the task and audience; organise information according to an independently chosen text type.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> have knowledge of the writing process, drafting, rereading, revising, editing, proofreading have knowledge of structure and language features of all text types have understanding of a range of grammatical features and punctuation that contribute to the meaning, purpose and clarity of texts

Students participate in teacher-directed graphical organisation of information.	Students use a word processor and simple multimedia to organise information with teacher assistance.	Students use word processing, spreadsheets, multimedia and simple databases to organise information	Students use word processing, spreadsheets, databases, multimedia, electronic templates and frameworks
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<p>ICT specific skills required:</p> <ul style="list-style-type: none"> • begins to delete or crop selected objects • begins to copy or duplicate graphic elements <p>The student: Uses a word processor and simple multimedia to organise information with teacher assistance.</p> <p>ICT specific skills required</p> <ul style="list-style-type: none"> • creates text box • understands and uses dialogue boxes • varies font, size and style. <p>Possible programs/resources <i>Microsoft Word , Microsoft Publisher, Kidspiration, EduWeb</i></p>	<p>ICT specific skills required:</p> <ul style="list-style-type: none"> • creates text box • understands and uses dialogue boxes • varies font, size and style. <p>Possible programs/resources <i>Microsoft Word , Microsoft Publisher, Kidspiration, EduWeb</i></p>	<p>with assistance.</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> • start an application and create a document • name and save a document in appropriate folder • retrieve, revise and rename a document • change text alignment • change margins and line spacing • use columns • create a database with a limited number of fields. <p>Possible programs/resources <i>Inspiration, EduWeb, Microsoft Office.</i></p>	<p>to organise information, with teacher assistance.</p> <p>ICT specific skills required</p> <ul style="list-style-type: none"> • change margins and line spacing • adds a table to a document and edits rows and columns • use bullets and numbering • use a thesaurus • sort data • format data to currency, time, number, percentage • use sum formula and undertake basic calculations • sort data in a database • add or deletes records in a class created database • edit data in an existing database record • understand strengths and weaknesses of databases • understand the purpose or structure of a spreadsheet • enter and edit data in a cell • change column width and row height • add or delete rows or columns. <p>Possible programs/resources As for Stage 2 and <i>Microsoft Excel</i></p>
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Presenting

Early Stage 1	Stage 1	Stage 2	Stage 3
<p>Students present responses to a task or question in a written or oral sentence drawing a simple picture sequence, model or role-play.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • draw with labels • write using some sight words or phonics • report orally in clear, distinct voice • recall information from class discussions and reading and tells class • sequence information in picture format 	<p>Students present responses to a task or topic which convey understanding of the information gathered using logical structures such as time sequences and cause and effect; format includes simple written or oral recounts and factual descriptions, illustrations, models and role play.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • sequence a few facts for an oral presentation • choose appropriate words to label illustrations • use appropriate drawings to accompany short piece of text 	<p>Students present responses to a research task in a written or oral mode demonstrating an understanding and interpretation of the information; use appropriate frameworks for a variety of text types such as reports, recounts and descriptions or graphic or pictorial, dramatic and constructed representations.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • plan oral presentations, can identify the main ideas • oral presentation skills e.g. looks at audience, speaks clearly in sentences, keeps to the topic, 	<p>Students present responses to a research task in a written or oral mode demonstrating an understanding and interpretation of the information; use appropriate frameworks for a variety of text types such as reports, recounts and descriptions or graphic or pictorial, dramatic and constructed representations.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • plan oral presentations, can identify the main ideas • oral presentation skills e.g. looks at audience, speaks clearly in sentences, keeps to the topic,

<ul style="list-style-type: none"> match labels to pictures. 	<ul style="list-style-type: none"> write captions for illustrations. 	<p>sequences content</p> <ul style="list-style-type: none"> design techniques such as headings, borders, labelled drawings, flow charts knowledge of different ways of presenting information e.g. posters, <i>PowerPoint</i>, oral, videos, songs, poetry, maps, graphs 	<p>sequences content</p> <ul style="list-style-type: none"> design techniques such as headings, borders, labelled drawings, flow charts knowledge of different ways of presenting information e.g. posters, <i>PowerPoint</i>, oral, videos, songs, poetry, maps, graphs.
<p>Students create pictures using a drawing program, use programmable keyboard to create simple text</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> use paintbrush, paintbox, spray can, eraser tools uses fill pattern, colours and shading. 	<p>Students present task in a simple multimedia format with teacher assistance; includes word processed and graphic documents; shares the task through emails.</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> use borders use print preview to view text before printing consider what needs to be printed e.g. number of pages to print prints document use simple graphics. <p>Possible programs/resources <i>Microsoft Word, Microsoft Publisher Kidspiration, EduWeb</i></p>	<p>Students present the task in multimedia format, including sound and video; publish the completed task via email and the school intranet with teacher assistance.</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> use spell checker insert graphics from clip art select appropriate graphics create a simple slide show with text and graphics insert slides choose appropriate slide design and layout print selected pages. <p>Possible programs/resources (for Stages 2 and 3) <i>PowerPoint, Inspiration, Microsoft Word, Microsoft Publisher EduWeb, Microsoft FrontPage, Microsoft Excel.</i></p>	<p>Students present the task in multimedia format, including sound and video; publish the completed task through email and the school intranet with teacher assistance.</p> <p>ICT specific skills required:</p> <ul style="list-style-type: none"> use spell and grammar checker and realises their limitations create a master slide template use columns add a table to a document and edit rows and columns use a digital camera to create a graphics file insert objects, digital image, photo, sound move graphics within a document use a scanner to convert a picture into a graphics file understand animation and illusion of movement recognise elements of multimedia presentation demonstrate understanding of key features of a web page.

Assessing

Early Stage 1	Stage 1	Stage 2	Stage 3
<p>Students orally check, with teacher direction, that each part of the task was covered.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> sequencing skills use of specific vocabulary. 	<p>Students self assess, with teacher assistance, the completed task with key question: <i>Did I answer the questions and present information appropriately?</i> Complete checklist covering each stage of the information process.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> knowledge of question and 	<p>Students self assess the completed task: <i>Did I present information that directly relates to my question?</i> Evaluate the information process and identifies one aspect for skill refinement with teacher assistance.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> knowledge of the steps of the information process (ongoing) 	<p>Students, using a teacher-selected framework, self assesses the research task: <i>Did my assignment answer the questions selected and was it in the appropriate form for the audience and initial purpose?</i> Identify areas for improvement in the process.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> knowledge of Information

	<p>answer relationship</p> <ul style="list-style-type: none"> • understanding of the steps of the information process. 	<ul style="list-style-type: none"> • editing skills • knowledge of text types, structure and language • self reflection on own presentation and others • format of rubrics. 	<p>process and associated skills</p> <ul style="list-style-type: none"> • knowledge of purpose of task.
<p>Students participate in teacher led evaluation of the role of ICT in task.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • verbal skills. 	<p>Students participate in teacher led evaluation of the role of ICT in the research task.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • examine the impact on people of increased availability of information • examines the use of ICT in the home • examines technological changes in the past ten years. <p>Possible programs/resources <i>SMART Board.</i></p>	<p>Students use a teacher developed framework to evaluate the role of ICT in the research task or process.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • knowledge of information process • the ability to judge the appropriateness of technology used in process • skills in verbalising advantages of technologies used. <p>Possible programs/resources <i>EduWeb.</i></p>	<p>Students evaluate the skills required and the role of ICT in the learning process.</p> <p>Information literacy specific skills required:</p> <ul style="list-style-type: none"> • cognitive skills of analyzing, synthesizing, evaluating tasks <p>Possible programs/resources <i>SMART Board, Microsoft Office, data projector.</i></p>