ICT matrix

Attachment D

Defining		matrix		
Early Stage 1	Stage 1	Stage 2	Stage 3	
 Students suggest questions for investigation, with teacher assistance, in response to directed discussion on a given topic using an audio and/or visual stimulus. Information literacy specific skills required. Students: 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. 	Students select from a range of well- defined topics, participate in teacher led brainstorming, focus question development and clustering of ideas. Information literacy specific skills required. Students: 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.	 Studge 2 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. Information literacy specific skills required. Students: 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. 	 Stude 5 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. Information literacy specific skills required. Students: 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. 	
 Students participate in teacher led development of questions in graphic and word-processing formats. ICT specific skills required letter recognition identify keyboard, mouse, monitor, hard drive identify cursor identify desktop and icons can open and close programs. Possible program/resource Microsoft Word, Kidpix, Crayola make a masterpiece. 	 Students participate in teacher led creation of simple word processed documents containing questions for the task and concept mapping using a graphic format ICT specific skills required: locates and uses return / enter, space, delete / back, shift, caps lock uses appropriate terminology – font, upper case, bold, italics Possible program/resource <i>Kidspiration, Microsoft Word.</i> 	 Students develop graphical formats for focus and contributing questions, with teacher assistance.; use tables to outline the research task. ICT specific skills required discriminates in the choice of applications for a given purpose understands basic terminology of data base-fields, records, files. Possible program/resource <i>Microsoft Office, Inspiration.</i> 	 Students develop concept maps and research outlines using word processors, spreadsheets and/or web pages; develop templates for frameworks. ICT specific skill required: understands terminology: column, row, cell. Possible program/resource <i>Inspiration, Microsoft Word</i>. 	

Locating

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

 Information literacy specific skills required: 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. 	 assistance; use author, title and subject entries in the catalogue; identify and use different parts of a text to locate information. Information literacy specific skills required: 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. 	 strategy, using single term catalogue searches.; prejudges the relative worth of a resource; use headings, captions and keywords to locate appropriate information. Information literacy specific skills required: 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 resourcess 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 	 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. Information literacy specific skills required: 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.
Students participate with the class and teacher in composing emails requesting information.	Students use an online catalogue and a teacher selected web page to form a simple word query; composes, sends	Students use online catalogues, simple databases and search engines for information needs; use electronic	Students use search engines and bookmarked sites to locate information; use email and discussion
	and reads emails to request	encyclopaedias and topic specific	lists to locate information.
ICT specific skills required:begins to understand the purpose	information and communicate (with teacher assistance); use topic specific	multimedia programs; use email for information gathering, including	ICT specific skills required:
of the Internet	multimedia programs to locate teacher directed information.	sending attachments.	as for Stage 2
Possible resource:		ICT specific skills required:	open a browser programbookmark a location
Internet.	ICT specific skills required:	• can use library enquiry terminal	• understand and use key words in
	• uses prepared bookmarks understands structure or purpose	 can complete a search on appropriate CD-ROMs 	an advanced search.
	of a database	• can use Internet search engine	
	• opens and uses a database	(with assistance) to locate information using appropriate	Possible program/resource
	Possible program/resource:	search words	Microsoft Internet Explorer, OASIS
	OASIS Library; World Book Encyclopaedia	• use and understands the features of a browser (back, forward, stop,	<i>library</i> , Internet search engines.
	web sites; videos.	search, home buttons, address bar, URL, loading status)	
		 compose and send email under guidelines and with supervision 	

	 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 Possible program/resource OASIS Library, Microsoft Encarta, WebsterWorld, email, Microsoft Internet Explorer.
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Selecting

Selecting Early Stage 1	Stage 1	Stage 2	Stage 3
 Students select main ideas and keywords from factual and literary texts or audio and/or visual source. Information literacy specific skills required: 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. 	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. Information literacy specific skills required: 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.	 Stage 2 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. Information literacy specific skills required: 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) 	 Stage 5 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. Information literacy specific skills required: 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.
 Students participate in teacher directed development of frameworks for ideas and concept maps using graphics. ICT specific skills required: select and moves objects using mouse use freehand drawing tools, pencil, straight and curved lines select objects with selection tool. Possible program/resource <i>Kidspiration</i>. 	Students use word processing to develop graphic or text concept maps; include graphic links to develop relationship of ideas. ICT specific skills required • select and highlight texts • delete text • use text tools. Possible program/resource <i>Microsoft Word</i> , CD-ROMs, web sites, <i>Kidspiration, Inspiration</i> .	 Students use tables, teacher- developed templates and graphic structures as notetaking frameworks, including multimedia developed by students, and information sources. ICT specific skills required: 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. Possible program/resource <i>Microsoft Word, Inspiration, Microsoft Publisher.</i> 	 Students select information from electronic indexes, full text sources and online services including web based information. ICT specific skills required 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. Possible program/resource Internet, CD-ROMs, search engines, <i>Microsoft Office</i>.

Organising

Torky Store 1	Stage 1	Stage 2	Stage 3
Early Stage 1 Students contribute to joint construction of texts and create a sequence of visual images to illustrate a procedure. Information literacy specific skills required: • sequencing • language patterns • some common sight words and conventions of print • developing phonic skills.	Stage 1Students process information by comparing, selecting and combining, with assistance, what is relevant to the task, and organising according to an agreed format.Information literacy specific skills required:• 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.	 Stage 2 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. Information literacy specific skills required: 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 	 Stage 3 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. Information literacy specific skills required: 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
	pro forma, flowchart, concept map	 have the ability to transform notes into more complex sentences using own language 	 language features of all text types have understanding of a range of grammatical features and punctuation that contribute to the

Students participate in teacher-	Students use a word processor and	Students use word processing,	Students use word processing,
directed graphical organisation of	simple multimedia to organise	spreadsheets, multimedia and simple	spreadsheets, databases, multimedia,
information.	information with teacher assistance.	databases to organise information	electronic templates and frameworks

 ICT specific skills required: begins to delete or crop selected objects begins to copy or duplicate graphic elements 	 ICT specific skills required: creates text box understands and uses dialogue boxes varies font, size and style. Possible programs/resources <i>Microsoft Word</i>, <i>Microsoft Publisher</i>, 	 with assistance. ICT specific skills required: start an application and create a document name and save a document in appropriate folder retrieve, revise and rename a document 	 to organise information, with teacher assistance. ICT specific skills required change margins and line spacing adds a table to a document and edits rows and columns use bullets and numbering use a thesaurus
 The student: Uses a word processor and simple multimedia to organise information with teacher assistance. ICT specific skills required creates text box understands and uses dialogue boxes varies font, size and style. Possible programs/resources Microsoft Word, Microsoft Publisher, Kidspiration, EduWeb 	Kidspiration, EduWeb	 change text alignment change margins and line spacing use columns create a database with a limited number of fields. Possible programs/resources <i>Inspiration, EduWeb, Microsoft Office.</i> 	 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. Possible programs/resources As for Stage 2 and <i>Microsoft Excel</i>

Presenting

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Early Stage 1	Stage 1	Stage 2	Stage 3
Students present responses to a task or	Students present responses to a task or	Students present responses to a	Students present responses to a
question in a written or oral sentence	topic which convey understanding of	research task in a written or oral mode	research task in a written or oral mode
drawing a simple picture sequence,	the information gathered using logical	demonstrating an understanding and	demonstrating an understanding and
model or role-play.	structures such as time sequences and	interpretation of the information; use	interpretation of the information; use
Information literacy specific skills	cause and effect; format includes	appropriate frameworks for a variety	appropriate frameworks for a variety
required:	simple written or oral recounts and	of text types such as reports, recounts	of text types such as reports, recounts
• draw with labels	factual descriptions, illustrations,	and descriptions or graphic or	and descriptions or graphic or
• write using some sight words or	models and role play.	pictorial, dramatic and constructed	pictorial, dramatic and constructed
phonics	Information literacy specific skills	representations.	representations.
• report orally in clear, distinct	required:	Information literacy specific skills	Information literacy specific skills
voice	• sequence a few facts for an oral	required:	required:
• recall information from class	presentation	• plan oral presentations, can	 plan oral presentations, can
discussions and reading and tells	• choose appropriate words to label	identify the main ideas	identify the main ideas
class	illustrations	• oral presentation skills e.g. looks	• oral presentation skills e.g. looks
• sequence information in picture	 use appropriate drawings to 	at audience, speaks clearly in	at audience, speaks clearly in
format	accompany short piece of text	sentences, keeps to the topic,	sentences, keeps to the topic,

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match labels to pictures. Students create pictures using a drawing program use programmable	• write captions for illustrations. Students present task in a simple multimedia format with teacher	 sequences content 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 Students present the task in multimodia format, including sound	 sequences content 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.
drawing program, use programmable keyboard to create simple text	assistance; includes word processed	multimedia format, including sound and video; publish the completed task	multimedia format, including sound and video; publish the completed task
ICT specific skills required:use paintbrush, paintbox, spray	and graphic documents; shares the task through emails.	via email and the school intranet with teacher assistance.	through email and the school intranet with teacher assistance.
 use paintotush, paintotox, spray can, eraser tools uses fill pattern, colours and shading. 	 ICT specific skills required: 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. Possible programs/resources <i>Microsoft Word</i>, <i>Microsoft Publisher</i> <i>Kidspiration</i>, <i>EduWeb</i> 	 ICT specific skills required: 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. Possible programs/resources (for Stages 2 and 3) PowerPoint, Inspiration, Microsoft Word, Microsoft Publisher EduWeb, Microsoft FrontPage, Microsoft Excel. 	 ICT specific skills required: 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

Assessing			
Early Stage 1	Stage 1	Stage 2	Stage 3
Students orally check, with teacher	Students self assess, with teacher	Students self assess the completed	Students, using a teacher-selected
direction, that each part of the task	assistance, the completed task with	task: Did I present information that	framework, self assesses the research
was covered.	key question: Did I answer the	directly relates to my question?	task: Did my assignment answer the
	questions and present information	Evaluate the information process and	questions selected and was it in the
Information literacy specific skills	appropriately? Complete checklist	identifies one aspect for skill	appropriate form for the audience
required:	covering each stage of the	refinement with teacher assistance.	and initial purpose? Identify areas for
 sequencing skills 	information process.		improvement in the process.
• use of specific vocabulary.		Information literacy specific skills	
	Information literacy specific skills	required:	Information literacy specific skills
	required:	• knowledge of the steps of the	required:
	 knowledge of question and 	information process (ongoing)	 knowledge of Information

	 answer relationship understanding of the steps of the information process. 	 editing skills knowledge of text types, structure and language self reflection on own presentation and others format of rubrics. 	 process and associated skills knowledge of purpose of task.
Students participate in teacher led evaluation of the role of ICT in task. Information literacy specific skills	Students participate in teacher led evaluation of the role of ICT in the research task.	Students use a teacher developed framework to evaluate the role of ICT in the research task or process.	Students evaluate the skills required and the role of ICT in the learning process.
required:verbal skills.	 Information literacy specific skills required: 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. Possible programs/resources <i>SMART Board</i>. 	 Information literacy specific skills required: knowledge of information process the ability to judge the appropriateness of technology used in process skills in verbalising advantages of technologies used. Possible programs/resources EduWeb. 	 Information literacy specific skills required: cognitive skills of analyzing, synthesizing, evaluating tasks Possible programs/resources <i>SMART Board, Microsoft Office,</i> data projector.