

Ace Your Project Work!

Helping Your Child Excel at School Projects

Parent's Guidebook





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Website:
sure.nl.sg

Email:
sure@nlb.gov.sg

100 Victoria Street,
National Library Building, #07-01,
Singapore 188064

Project Work

Why is project work important?

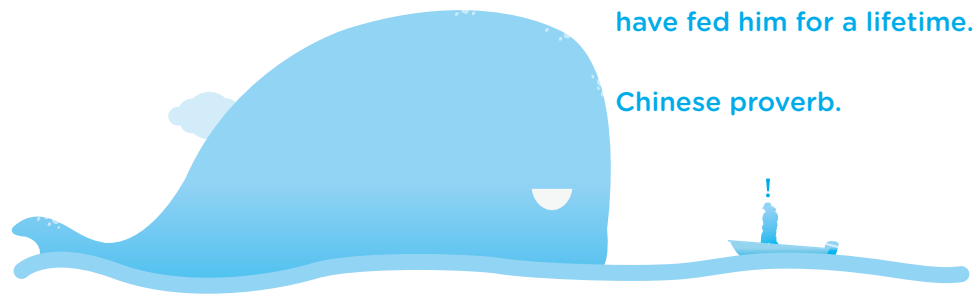
Project work complements the academic curriculum because it presents a learning experience for students to apply their knowledge and skills in given scenarios and sometimes real life situations. Well thought-out project work assignments can measure the capacity of students to analyse, reason and communicate effectively.

The Ministry of Education (MOE) cited four learning outcomes expected from project work and these include requiring students to make links across different areas of knowledge, and to generate, develop and evaluate ideas and information. As a result, students will acquire skills like collaboration, communication and independent learning, thus preparing them for lifelong learning.

(MOE: Project Work, Retrieved April 10, 2012 from <http://www.moe.gov.sg/education/programmes/project-work/>)

**“Give a man a fish;
you have fed him for today.
Teach a man to fish; and you
have fed him for a lifetime.”**

Chinese proverb.



As parents, we all want our children to learn to fish for themselves. We want them to know how to think for themselves and become motivated, independent learners. We can all agree that knowing how to apply the thinking and research process for all project work is a valuable life skill to acquire. But how do we help our children develop such skills?


Parents as Helper-Guide

We often encounter anxious parents who try to do too much for their children's project work at the libraries. In the quest for good grades, some parents fail to realise that they are depriving their children of the opportunity to learn and acquire valuable life skills. Hence, it is important to bear in mind the long-term objectives of project work for your child and subdue the adult's urge to take over the project entirely.

The parent is the helper and the guide, providing assistance and advice when necessary, but not to lead or to partner the child in doing the work. The child must be given space to provide his own solutions but the parent can help by asking questions to inspire the child to come up with these solutions.

How to use this guide

This guide will walk you through the principles of research using the six-step information problem-solving process, with emphasis on evaluating information sources. This six-step process mirrors the lifelong learning process and can be applied in any area of life once your child is able to grasp the underlying principles.

Look out for this icon  for tips as helper-guide to your child in every step of the process.



Your role as the parent is to help your child become motivated, independent learners and discerning users of information.

Information Problem-Solving Process

Your child may feel overwhelmed by project work if he/she is doing it for the first time. You can break the learning tasks into manageable parts first. This can be done using the six-step information problem-solving process.

Here is the process at a glance:

Task Definition



- (What does this assignment require me to do?)
- Define the problem
- Identify the information needed
- Parent: Ask child to explain assignment in his/her own words

Search Strategies



- (What sources can I use?)
- Determine all possible sources
- Select the best sources
- Parent: Discuss possible sources of information

Location & Access



- (Where can I find my sources?)
- Locate sources
- Find information within sources
- Parent: Brainstorm with child where information can be found, help child implement search strategies and find useful resources

Use Information



- (How do I evaluate information?)
- Engage
- Extract
- Parent: Discuss with child whether information located is relevant and help child decide how to use it

Synthesis



- (How do I connect all the information together?)
- Organise information from multiple sources
- Present results
- Parent: Ask for a summary of the information in the child's own words and whether the information fits the requirement identifies

Post-project Evaluation

- (How do I feel after doing the project?)
- Evaluate the results (effectiveness)
- Evaluate the process (efficiency)
- Parent: Discuss with child whether the final product meets the teacher's requirements and expectations and ask them what he/she has learned from the project

Step 1 – Define Task

This is the first stage and your child should be able to articulate what is expected of him from the project work assignment.

He should have a clear idea of the parameters set by the teacher and try to envision what the end product should look like. Good questioning techniques help to define what the task should be. Your child can use the 5W1H method to do this. Depending on the nature of the project, he can ask himself questions like:

“WHO

is involved in this project?”

“WHEN

must I submit the project?”

“WHAT

am I supposed to do for this project?”

“WHERE

can I find information about the project?”

“WHY

did the teacher assign this project?”

“HOW

should I approach the project?”

You can use the KWL chart to help your child identify the project requirements. The first two columns are for your child to fill up before he starts the project. The last column can be used after the project is completed.

KWL CHART

What I know	What I want to know	What I learned

Refrain from telling your child what to do. Instead, ask leading questions to help him define the project. You can also help him identify keywords for the project topic which will come in handy when sourcing for information later on.



You can ask your child to explain the project assignment in his own words to test his understanding of the project assignment and brainstorm for keywords with him.

Step 2 – Plan Search Strategies

Once your child is clear about the project's requirements, he can plan his search strategies on how to source for information. He needs to first be aware of the information sources that are available. One way to approach this is to conduct a preliminary search on commonly used information sources using the keywords that have been predefined together with the parent.

Commonly used information sources:



Library Catalogue:

Visit the NLB online catalogue (<http://catalogue.nlb.gov.sg/>) to locate books, videos, music CDs, maps, posters, microfilms, magazines and journals.



Library eResources:

Visit the NLB eResources (<http://eresources.nlb.gov.sg/>) for electronic journals, encyclopedias and eBooks. This rich source of information is a treasure trove for researchers seeking reliable, in-depth content for topics ranging from the arts to zoology.



Search Engines:

Google, Yahoo and Bing are some examples of major search engines available on the internet. Apart from these commonly used search engines, there are also search engines designed for children that will retrieve only contents suitable for children. Try KidsClick!, Yahoo! Kids, Quintura Kids and KidRex.



Digitised Newspapers:

The newspaper is a very important information source for many projects. Historical and current events, quotes from important people and useful statistics can be found in newspapers. Visit the digitised version of archived local newspapers on NewspaperSG (<http://newspapers.nl.sg/>) and latest news on Factiva (access via <http://eresources.nlb.gov.sg/>).



Singapore Pages:

It is quite common for schools to assign projects related to Singapore history. The best resource for local heritage projects is the National Library Singapore because it is the depository for local heritage materials. Visit the National Library website (<http://www.nl.sg/>) and browse the Singapore Pages section for a comprehensive selection of digital and print resources ranging from music, encyclopedic articles to digitised rare books.

A librarian will be able to recommend the best information sources for each research topic. The parent can accompany the child to the library and consult with the librarian or email the librarian at ref@library.nlb.gov.sg.

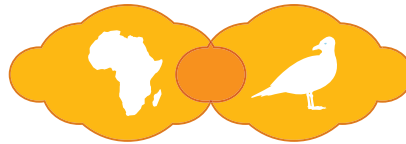


You can discuss possible information sources with your child, explain each source's relevance for the project and accompany him to the library to consult with the librarian.

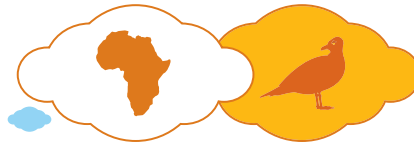
Step 3 - Locate Information

Nowadays, search engines are so intuitive that anybody can obtain fairly decent results on general search platforms.

To enhance search efficacy, here are some tips that you can learn and share with your child to shorten the time required to locate useful resources. Most search platforms default to the Boolean search operators.



The Boolean search operator “AND” is the same as “+” sign. E.g. If you are looking for birds found in Africa, type **Birds+Africa** to narrow your search.



The Boolean search operator “NOT” is the same as “-” sign. E.g. If you are looking for birds all over the world except those found in Africa, type **Birds-Africa** to narrow your search. Do note that spacing matters when using Boolean operators.

The Boolean search operator for specific terms is putting the search query in quotes “ ”.

E.g. If you are looking specifically for African Eagles, putting the search query “**African Eagles**” in quotes will get you better results than simply typing African Eagles.

Contents Page and Index

When using print resources, you can show your child how to browse the Contents page and Index section of the book to locate specific information within the book.

Locating relevant information within resources is very much tied to the success of selecting keywords for the project at the task definition stage. Hence, you can continue to reinforce the importance of using alternative words to widen or narrow down the scope of research. To help locate alternative words, you can show your child how to use a thesaurus or glean for keywords from preliminary research articles.



You can teach your child simple search tips to improve search efficacy and help him to implement the search strategies.

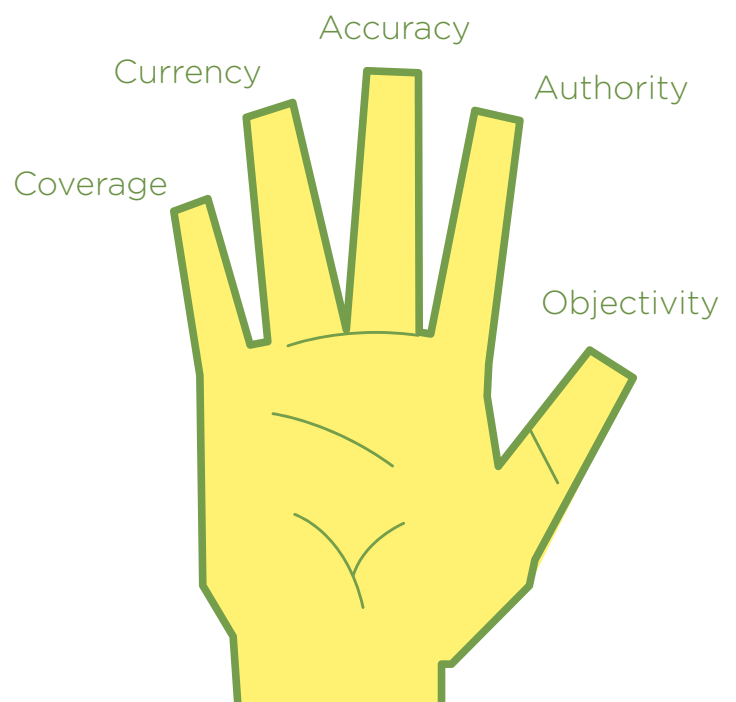
Step 4 - Evaluate and Use Information

Evaluating information trains up the child in critical thinking and is a highly-valued skill in modern society.

You can discuss the merits and demerits of each information source/website with him in the beginning, then slowly let him work through his own thinking process. As the saying goes, practice makes perfect! The more opportunities you give your child to evaluate information, the more he can develop a better understanding of what is trustworthy and useful.

To help your child, you can use the simplified “5-Finger Test” to show him how to determine which information is reliable and relevant. The “5-Finger Test” is made up of 5 simple questions that your child can ask himself whenever he is unsure if he should use an information source for his project.

Apply the “5-Finger Test”



1 Authority

The source of the information.

- Is there an author?
- Is the author qualified to talk about this topic?
- Is the author, institution or organisation recognised in the field of your research topic?
- Is there an address to contact for more information?

2 Accuracy

The reliability of the information.

- Are information sources cited and listed in a clear manner so they can be verified?
- Is the information presented in correct grammar and spelling?
- Is it free from other errors?
- Is there information on the website that you suspect is wrong?

3 Currency

The timeliness of the information.

- When was it written?
- When was the webpage updated?
- Are the links still working or have they expired?
- Is it stated clearly how old the information is?

4 Coverage

The relevance of the information.

- Is the information related to your research topic?
- Does it help to answer your question?
- How broad and how in-depth is the topic coverage?
- Does it lead to locating other related information?

5 Objectivity

The reason the information exists.

- Is the information based on one person's opinion, and if so, is it biased?
- Is the information provided as a public service or is it affiliated to an organisation with a private agenda?
- Does the information appear impartial, and does it acknowledge alternative perspectives?
- Is there advertising on the webpage that is related to the research topic?
- Does the information exist to inform, educate, propagate, persuade, advise, advertise or entertain?



You can discuss with your child whether each information source is reliable and relevant. You can also ask him how he plans to use the information to help him decide whether the information should be included in the project work.

Step 5 - Synthesise Information

With all the relevant information on hand, it is now time to put them together and present them in a coherent format as specified by the teacher.

Organising

Ask your child to organise the information collated into categories (e.g. chronology or timeline, cause and effect, comparison of differences, pros and cons etc.). Categorising information is equivalent to getting your child to summarise the key information presented. This will allow him to articulate his thoughts and understanding of the subject matter. At this stage, it is useful for you to review the TASK DEFINITION with your child again, in order to check that he understands the final product (e.g. power point slides, web page, essay etc.) he is expected to submit to the teacher.

While synthesising the information, gaps may be identified and your child can be advised to retrace steps 3 and 4 to locate more information.

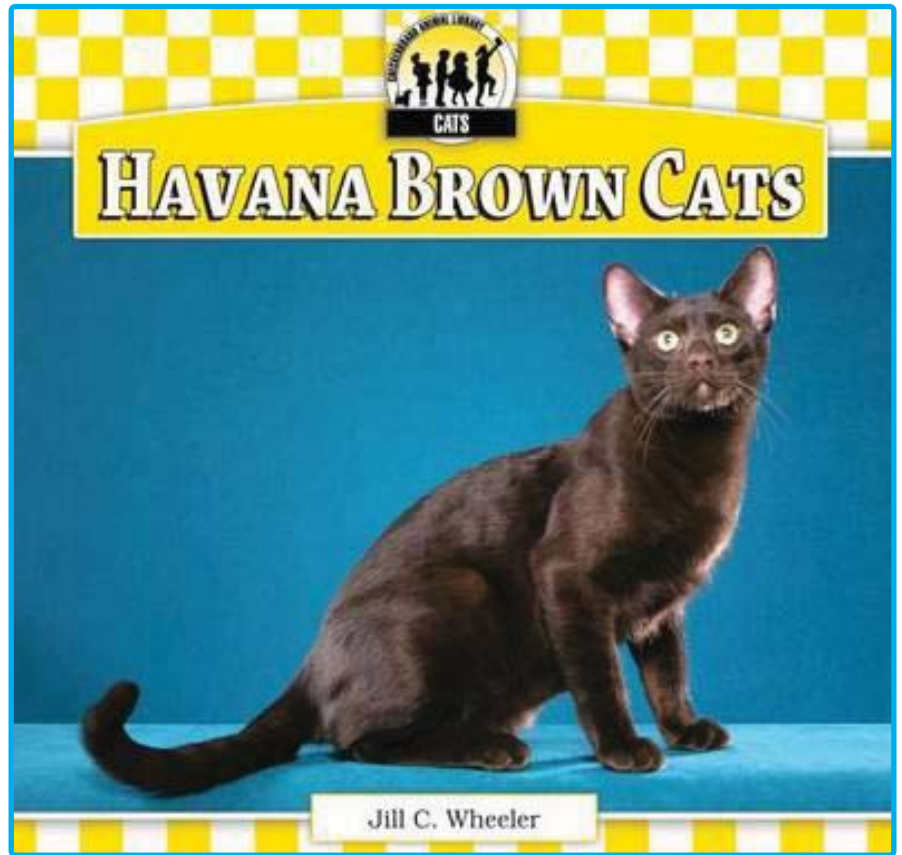
Citation

With the ease of locating, copying and pasting information, plagiarism has emerged as one of the major concerns in the academic field. Plagiarism or literary theft is a serious offence and you should explain to your child why it is wrong to steal the ideas or words of another person without giving the person due credit.

You can teach your child how to cite sources properly. Citation skill is a lifelong skill that will be useful throughout your child's academic and working life. There are books and websites that teach such skills. You can then help him to prepare a bibliography that can be appended with the project work for submission.

Here's how to cite a book, a website and a newspaper article. The APA citation method is one of the most commonly style used. We use icons here to help your child understand the citation process.

Citing a book:



To cite, follow these symbols:

	Author (surname, initial)	Wheeler, J.C.
	Publication Year	2012
	Title (in italics)	<i>Havana Brown Cats</i>
	Place of publication (city)	Minneapolis
	Publisher	ABDO Pub. Co.





Put them together:

Wheeler, J. C. (2012). *Havana Brown Cats*. Minneapolis: ABDO Pub. Co.

Citing a website:

The screenshot shows a web browser window displaying the 'Insects at Animal Corner' page. The URL bar shows 'http://www.animalcorner.co.uk/insects/insects.html'. The page title is 'Insects at Animal Corner'. The author is 'Animal Corner'. The publication date is 'June 5, 2012'. The main heading is 'Insects, Bugs and other Creepy Crawlies'. The text discusses the diversity of insects and their characteristics.

To cite, follow these symbols:

	Author	Animal Corner
	Publication year	2012
	Title (in italics)	<i>Insects</i>
	URL	Retrieved from http://www.animalcorner.co.uk/insects/insects.html






Put them together:

Animal Corner. (2012). *Insects*. Retrieved from
<http://www.animalcorner.co.uk/insects/insects.html>

Citing an online newspaper article:

The image shows a newspaper article titled "Teen surfers prey to 'Web of deception'" from The Straits Times, dated Monday, September 1, 2008, page B2. The author is identified as Lim Poo Hoon. The article discusses a study on teenagers' media literacy skills, noting that 14 out of 10 students who read the bogus website believed its content was actually real. The article also mentions that the website was used by students in Connecticut, USA, and that the study was conducted by Dr. Nicholas Galati, a secondary 3 student at St Nicholas Girls' School.

To cite, follow these symbols:

	Author (surname, initial)	Lim, P. H.
	Publication year	2008, September 1
	Title of article	<i>Teen surfers prey to 'web of deception'</i>
	Name of newspaper (in italics)	<i>The Straits Times</i>
	URL	Retrieved from http://newspapers.nl.sg

Put them together:

Lim, P. H. (2008, September 1). Teen surfers prey to 'web of deception'. *The Straits Times*. Retrieved from <http://newspapers.nl.sg>



You can ask your child to provide a summary of the key information in his own words to check his understanding and review the TASK DEFINITION requirements again to ensure that he is clear about the expected results.

Step 6 – Feedback and Reflect

“If you always do what you have always done, you will always get what you have always gotten.”

Idiom

Post-project reflection tends to be neglected because many people do not see it as an important part of project work. But in the Information Problem-solving Process, this step is last but not least. When your child has completed his project work, you can take time to sit down with him and ask him to evaluate the results and process so that gaps can be identified. Do not miss the opportunity to turn this into a learning lesson for your child. You can ask him what he has learnt from doing the project work and how he thinks he can do better next time. Walk through the Information Problem-Solving Process with your child again. This will reinforce the skills he has learnt from the project work and commit them to his memory. The next time he is given a task, he can apply the same skills again.

For group projects, ask your child how he would evaluate his peers, what their strengths and weaknesses are, how he has performed in a group setting and if he was the team leader, how would he have done things differently.

Post-project Self-evaluation Form

- Did you learn anything new?
- What areas are you happy with?
- What did you find easy?
- What did you find difficult?
- What helped you solve the difficult areas?
- What can you do now that you couldn't do before?
- How would you do differently if you can redo the project?



You can discuss with your child what he has learnt from the project work, how he can do better next time and whether he thinks it has met the teacher's requirements.

The Information Literacy courseware is designed to guide parents and children with project work. It is a useful tool that can be applied in schools and learning environments.

However, children are often exposed to a wide range of information sources – from TV programmes, social media channels and even hearsay. Here are 4 S.U.R.E. ways to help children cut through the information clutter.





sure.nl.sg
sure@nlb.gov.sg