

## **STEPS 4 SCIENCE**

STEPS – is an Information model designed with an easy to use mnemonic that appeals to children.

If you can't put it on one piece of paper it will probably be too hard to teach easily, so each of our handouts are designed to get the point across in one page...



### **About this Information Process Model**

This model was developed from a New Zealand Information Literacy meeting in 2004, to meet the needs of seeing learning and information literacy as a journey.. hence STEPS. It has been trialled across a range of curriculum areas (i.e. there is a version for science/ technology/art etc) and age groups (version for junior classes) and has a range of supporting resources to aid in implementation.

### **IMPORTANT**

Please download/ print and think through the philosophy behind this model so that you are familiar with the concepts.

<http://www.in2edu.com/steps.html>

# Information Process

Reflecting &  
Reviewing

**S** SET SCENE

**So What? What do I know?  
What do I need to find out?  
Hypothesis? Read  
background information.  
Wonder! Fat Questions!**

**T** TARGET

**Design Experiment /Plan/ and  
find Sources of information.  
Where and how will I find  
answers? What are my  
Keywords? How will I collect  
my data?**

**E** EXPLORE

**Experiment. What information  
do I need? What to leave out?  
Sorting, analysing, organising  
the information to relate results  
to hypothesis. What inferences  
and recommendations can I  
make?... Citate sources. Be the  
great Explorer.**

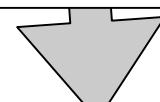
**P** PRESENT

**Communicate. Creativity.  
Share information, tell the  
story. State your conclusions  
about the hypothesis.**

**S** SO WHAT

**What will I do now? PMI,  
What action or service. How  
well did I do? What did you  
learn about STEPS? How  
could you or the world change  
as a result?**

**I'm an Science Investigator**



# SET SCENE

**So What? What do I know?**

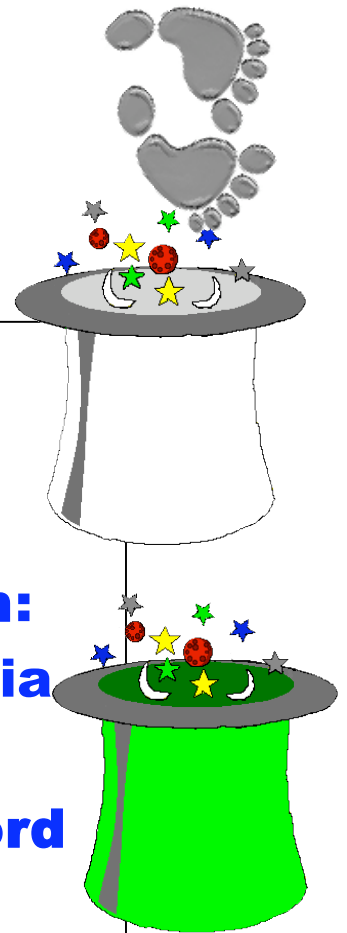
**What hypothesis do I have?**

**What do I need to find out?**

**Read background information: check out a simple encyclopaedia article, make a search on the internet using your main keyword for your topic and words like “introduction”, “kids”, “facts” to help you get simpler information.**

**Have a sense of Wonder! Use Blooms higher level for thinking question starters.. find the why... get curious.. be an investigator...**

**Fat Questions! Create questions that make connections and comparisons, and will help you to see patterns.**



**STEPS: Science Information Process**

**Set Scene, Target, Explore, Present, So What**

# TARGET



**Underline in your questions your keywords. Write these out. Use a thesaurus to get more keywords. In the introduction information you read were there any other words you could use as keywords?**

**What type of source will be the most reliable and easy to access for you?**

**Check out the posters on first-hand and second-hand sources and write down some sources that will be best to use.**

**What skills will you need to use these sources?**

**As you have read you may decide it would be a good idea to re-write some questions to show better thinking.**

**PLAN – what you will be doing and how long you think each step or answer should take.**



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# EXPLORE



**You are an investigator... read your questions and use keywords to find the information you require. Use a number of sources to find the truth or best answers. Find the best facts.**

**Locate main ideas, take notes and look for ways to express your own thoughts and opinions.**

**You may decide to collect ideas and put them into sets or organise at the same time or you may collect them all and organise them later. Think about how you will be presenting.**

**What information do you need? What to leave out? Check you do have answers to your questions. Sorting, analysing, organising, priorities, synthesising.. be a great Explorer**

Don't worry about trying to make it fancy or have great effects just yet!

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**Set Scene, Target, Explore, Present, So What**

# PRESENT



**Tell the story of what you have learned. You should be an expert now. How will you hook people into your topic, how will you keep it interesting? Is it clear and easily read or heard?**

**Use balance, colour, variety but remember that most importantly you are communicating, sharing information. Do you have a beginning (introduction), middle and end?**

**Highlight your original thinking and creative ideas.**

**Have you targeted your presentation to your audience?**

**Check: Does your presentation refer to the original questions and presents your thoughts, conclusions and recommendations? Checked rubric?**



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**Set Scene, Target, Explore, Present, So What**

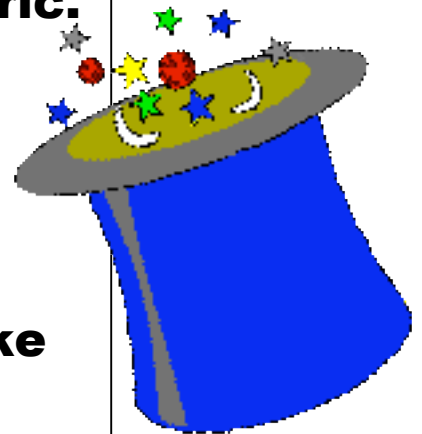
# SO WHAT?



**Now that you have presented, what are your recommendations for the future? How has this changed the way you think about the world? What do you think you should do next? How well did your presentation go? Did people understand what you were saying? What feedback did you get? Check off your final assessment rubric.**



**ALSO: throughout the process of STEPS what did you learn about yourself? What did you learn about learning? What changes did you make as you went, that show you were reviewing/reflecting as you went? These thoughts may have been written in your learning journal.**



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