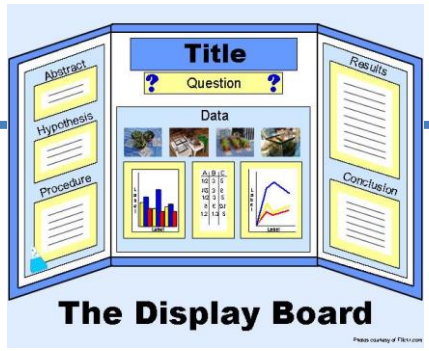
The West End State School: Science Fair 2020 (Year 3-6)

Do you love Science? This is an opportunity for you to present a scientific based investigation project. Outstanding projects will be sent to the Queensland Science Contest and this year there are over $12 000 worth of prizes available in the State contest.

→ All entries need to be submitted by Monday 24th August.
→ Send your project to the library.

You can choose to do the project on your own or partner with someone. Your submission must include an investigation **planner, science journal** and photographs to support the investigation. The report should be a free-standing board display (refer to the pictures below)



Scientific Investigations

What makes a winning entry?

- **Title & Introduction**

Choose a relevant and original topic for your investigation. It should address an issue of scientific significance that may be of a social, local or personal nature. The introduction should also contain a statement about why you chose to investigate this topic.

- **Research Question**

What is your investigation question? Eg: 'What locations or conditions are best for keeping food fresh?'

- **Hypothesis**

Predict an answer to your research question and give your reasons.

- **Table of Variables – Fair Test**

What to change (Independent variable)	What to measure (Dependent var.)	Keep the same (Controlled variable)

- **Material List, Procedure and Diagram**

The procedure is the steps you followed in your experiment in sequential order. Include a diagram to show how the experiment was set up. Perform one or more experiment that will make up the investigation.

- **Risk assessment**

What are the risks involved and how to minimize them.

- **Results**

Analyse your result. Use a table, diagrams, graphs, photographs, flowcharts or maps to represent or show your data.

- **Discussion**

Discussion of the results referring to your research question. Use your results to explain why things

happened the way they did. Include any difficulties and anomalies in the result.

- **Conclusion & Application**

A summary of the results and a statement of how the results proved or disproved the hypothesis. Include suggestions for further research. Does your investigation have application to the everyday world? If so, how?

- **Bibliography**

List the books, articles, internet sites, etc. you actually used for your final report.

- **Acknowledgements**

It is expected that the students will complete the majority of the work themselves but must acknowledge any assistance received from others. Clearly explain who helped you and how they assisted.

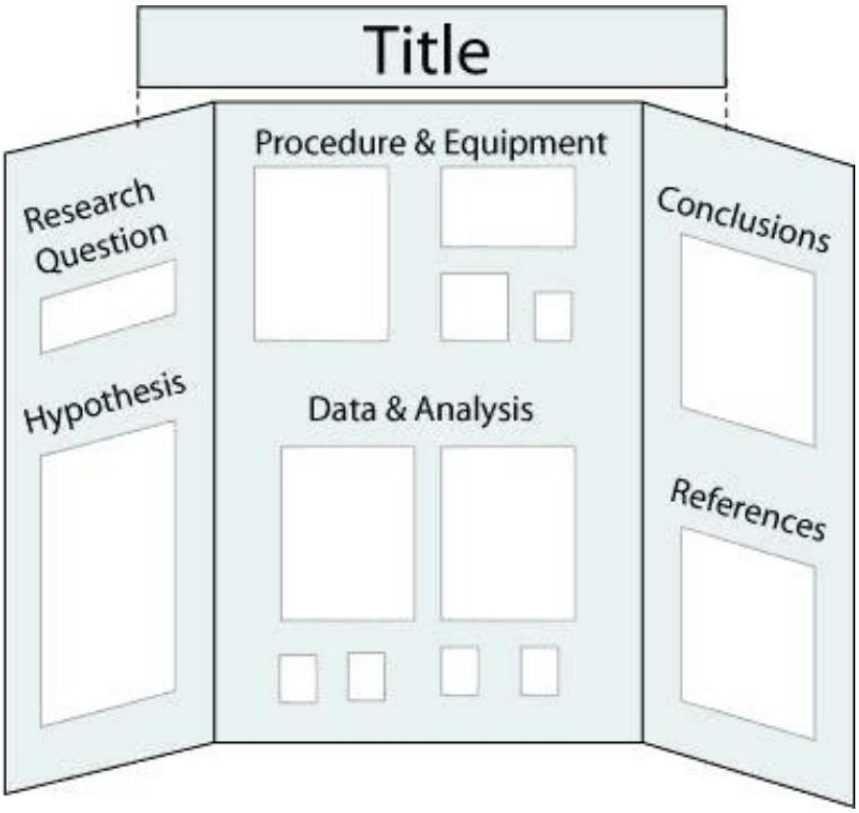
- **Journal**

A neat, orderly journal (use an exercise book) MUST be handed in with your project. This shows the purpose behind the study, and the way in which the question evolved and a record of how the work progressed (including the disasters). It is expected to contain handwritten and sketched ideas.

Helpful Websites Google 'science for kids' to find lots of useful sites.
http://www.scienceweek.net.au/ http://www.sciencebuddies.org/
http://www.staq.qld.edu.au/competitions/ http://www.sciencekids.co.nz/projects

Marking Guide

Scientific Investigation Criteria (Years 4-6):	**Tick when included**
Presentation & Communication Neatness, clarity of text. Use of images, tables, and graphs.	
Design investigation Introduction, identification of a research question that can be investigated scientifically, different variables and hypothesis.	
Carries out investigation Description of how to manage risk, list of materials, sequenced procedure.	
Interpret results Summarizing data using graphs, tables or other representations, description of trends and relationships, identification of errors and reference to plausible causes of errors.	
Conclusions and Application: Drawing on relevant evidence and relationship to support conclusions. Suggest effective improvements to method.	
Evidence of Ownership Evidence of ownership from journal, acknowledges assistance.	
Significance and ingenuity Address an issue of scientific significance (personal, local or social), description of how the project fits in a wider scientific context, demonstrating an original & creative approach to solving the problem.	
Total	



- Your board does not have to look exactly like this – this is just one example.
- The card you use must be rigid and self supporting – a large cardboard packing box with lighter coloured card glued on is great
- You can display your journal and any other items used in your experiment in front of your board