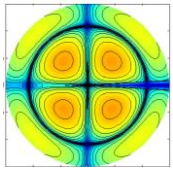

AUSTRALIAN CURRICULUM PHYSICS

GETTING STARTED WITH PHYSICS

HOW TO ACQUIRE KNOWLEDGE AND SKILLS IN PHYSICS

When you start a study session in physics say to yourself 10 times

Physics is Fun
Physics is Exciting
Physics is SIMPLE

It is a good idea to limit a study session to no more than 60 minutes, about **45** minutes is an ideal amount of time. Studying your Physics is not like reading a novel. You need to make it an active process and not one in which you only read or make linear summaries that paraphrase the text. Always have a pen and plenty of paper when studying physics.

To gain the maximum benefit from studying a topic, you should consider doing the following:

1 Review and Speed Read each Module.

2 Read each Module and your reference text carefully: identify the terminology and concepts that have to be memorised and try to gain an understanding of the content by using different types of summaries.

3 Use a physical quantities template – summary of symbols, meaning of symbols, units.

4 Use equation templates.

5 Construct ***concept maps*** ***or*** ***mindmaps*** or a summary for each topic you are going to study.

6 Work through sample problems, problems and questions.

7 Keep a **study diary**: each week review how many minutes you spend on various activities.

Memorising and improving your understanding is best done by spending short periods of time reviewing your summaries

Mindmaps

Mindmaps are a very useful tool that can help you gain a better understanding and help you remember large amounts of content. Sample mindmaps will be given throughout the web notes, but the best ones are those that you create.

PREDICT OBSERVE EXPLAIN POE

The POE strategy was developed by White and Gunstone to uncover individual students' predictions, and their reasons for making these, about a specific event. Reference: White, R. T., & Gunstone, R. F. (1992). Probing Understanding. Great Britain: Falmer Press.

It can be a very powerful learning strategy and one that you should implement in using the Australian Curriculum Physics web resources.

Assume that you are going to view a demonstration, animation, movie etc on some physical behaviour and that you want maximise your understanding of the physics from the event.

PREDICT

- Carefully think about the physical situation associated with the event.
- Write your predictions on what may happen in the event.
- Write a justification for your predictions.

OBSERVE

- Carefully observe the event and compare what you see with your predictions.
- Write down your observations.

EXPLAIN

- Write an explanation of the event and compare your predictions with the observations. Try to resolve any conflicts you had between your observations ad predictions.

You can search the WEB for more information on **PREDICT OBSERVE EXPLAIN**.

You can try the link [cited: June 2012]

http://www.learningdesigns.uow.edu.au/tools/info/T3/index.html