Thinking & Working Scientifically

Year 8 & 9 Parent Night

2014
Interactive Science Notebooks

• http://mrsmorrittscience.weebly.com/interactive-science-notebooks.html
What is it?

- Thinking Science is a special program that is designed to improve student thinking skills.

- It is based around Science, but will improve your general thinking skills, this means that it will benefit you in other subjects as well.
What's involved

- Students will participate in 30 ‘lessons’ spaced over years 8 & 9.
- This works out to be about one lesson every two weeks.
The Theory

- The program has been developed by scientists who are experts in student learning and ‘Thinking’
- One of its concepts is the ‘Zone of Proximal Development’
The Theory

- Think back to when you learnt the recorder or another instrument in primary school.
- If you only ever learnt/practised the same simple songs eg ‘Silent Night’, then you would never get better.
The Theory

- If you had to learn a really hard song, you would have no chance and would probably give up.
- What the music teacher would have done was try and get you to learn songs that were a little bit harder than what you could already play but not so hard that you couldn’t do it.
- What your teacher was doing was getting you into your Zone of Proximal Development.
The Proof

Thinking Science has been taught in England for many years. (It is called CASE).

What they have been able to show is that students who completed the program in year 7 & 8 (Year 8 & 9 in Western Australia) achieved higher grades in their year 11 GCSE (Year 12 WACE in WA).
The Transfer Effect

- The researchers were also able to show that the Thinking Science program also improved the students grades in other subjects as well.
- The following graphs illustrate this ‘transfer effect’.
The Transfer Effect

**GCSE Maths 1999**

- **St. Albans**
- **Chatham Girls**
- **George Abbott**
- **Sharnbrook**
- **Downend**
- **St. Edmunds**
- **Clapton**
- **Sion Manning**
- **South Camden**
- **Rokeby**

**GCSE English 1999**

- **St. Albans**
- **Chatham Girls**
- **George Abbott**
- **Sharnbrook**
- **Downend**
- **St. Edmunds**
- **Clapton**
- **Sion Manning**
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- **Rokeby**
Assessments

• Bringing the right materials
• Being prepared
• Reading and using a program