J. Martens

With Gladstone Science Department

Adapting Science

Accomodating all students in a Junior Science classroom.

September 2011

Framework of Six Strategies

Strategy #1	Clear Learning Intentions
Strategy #2	Co-constructed Criteria
Strategy #3	Questions
Strategy #4	Descriptive Feedback
Strategy #5	Peer & Self Assessment
Strategy #6	Ownership

What Works Best for Students is Similar to What Works Best for Teachers

There many things that influence student learning. Some influences have a large positive effect, some have a small positive effect, some have a negative effect and some have no effect.

Some influences can be changed and some cannot. Of the influenced that can be changed, some are easier and some are harder. Some require less work and some require more work. Some are inexpensive and some are costly.

Ideally we want to the things that have the biggest positive effect, are the easiest to do, and require the least amount of work.

Teachers make a huge difference. What we do matters.

In the context of positive teacher-student relationships, classrooms where students can confidently answer the following three questions have the highest achieving students.

Where are you going with your learning?
How are you doing?
What next?

This takes time to do fully but the benefits start immediately.

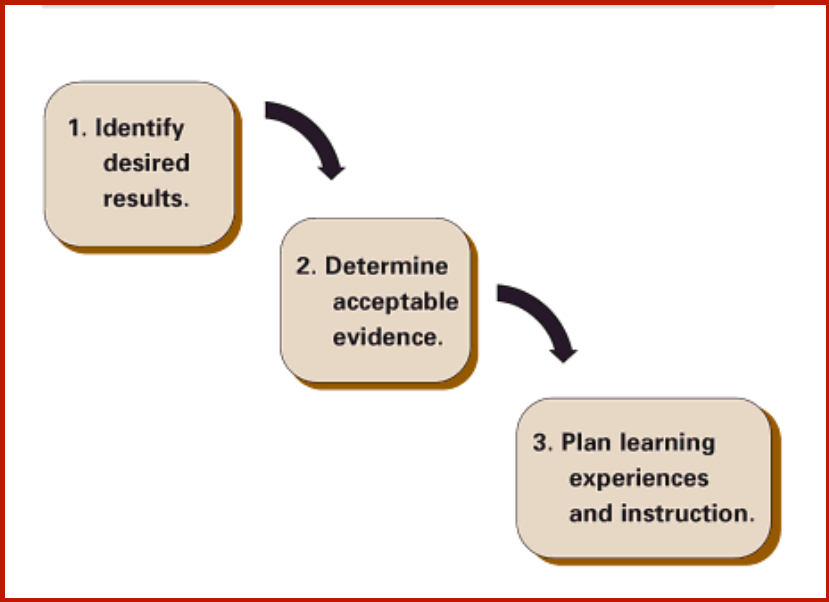
Backward Design

Start with the end in mind.

Focus on a small number of transferable Big Ideas.

Be explicit. Prioritize.

(Wiggins & McTighe)



Start with Clear Learning Intentions

Build from Achievement Indicators in the IRP

The Ministry IRP's include a "Student Achievement" section. For each topic in the curriculum there is a summary page with the "Key Elements of the topic and a table listing the PLOS and "Suggested Achievement Indicators.

These can be used to varying degrees.

Keep "Backward Design" in mind.

Level 1: Photocopy & handout

Level 2a: Re-write in "student-friendly" language

Level 2b: Re-vise/re-order/emphasize/de-emphasize

Level 3: Separate into KNOW's & DO's

Level 4: Articulate the "Big Ideas"

The Big Ideas: "I Understand That…"

Big Ideas go by many different names including:

- Key Ideas
- Key Concepts
- Essential Understandings
- Enduring Understandings

Students **demonstrate** their **understanding** by showing what they **can do** with what they **know**.

Big Ideas should be accessible.

Big Ideas should be important.

What varies is how DEEPLY a student understands them.

Start High on Bloom's Taxonomy