Intentional Planning & Gaining Alignment

Effective Lesson Design in English & Mathematics

Presented by Rebecca Starling & Jade Vidovich

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AITSL Standards:

S1 Know students and how they learn.

1.2: Understand how students learn

S3 Plan for and implement effective teaching and learning

3.1: Establish challenging learning goals

3.2: Plan, structure and sequence learning programs 3.3: Use teaching strategies

3.6: Evaluate and improve teaching programs

S5 Assess, provide feedback and report on student learning.

5.1: Assess student learning

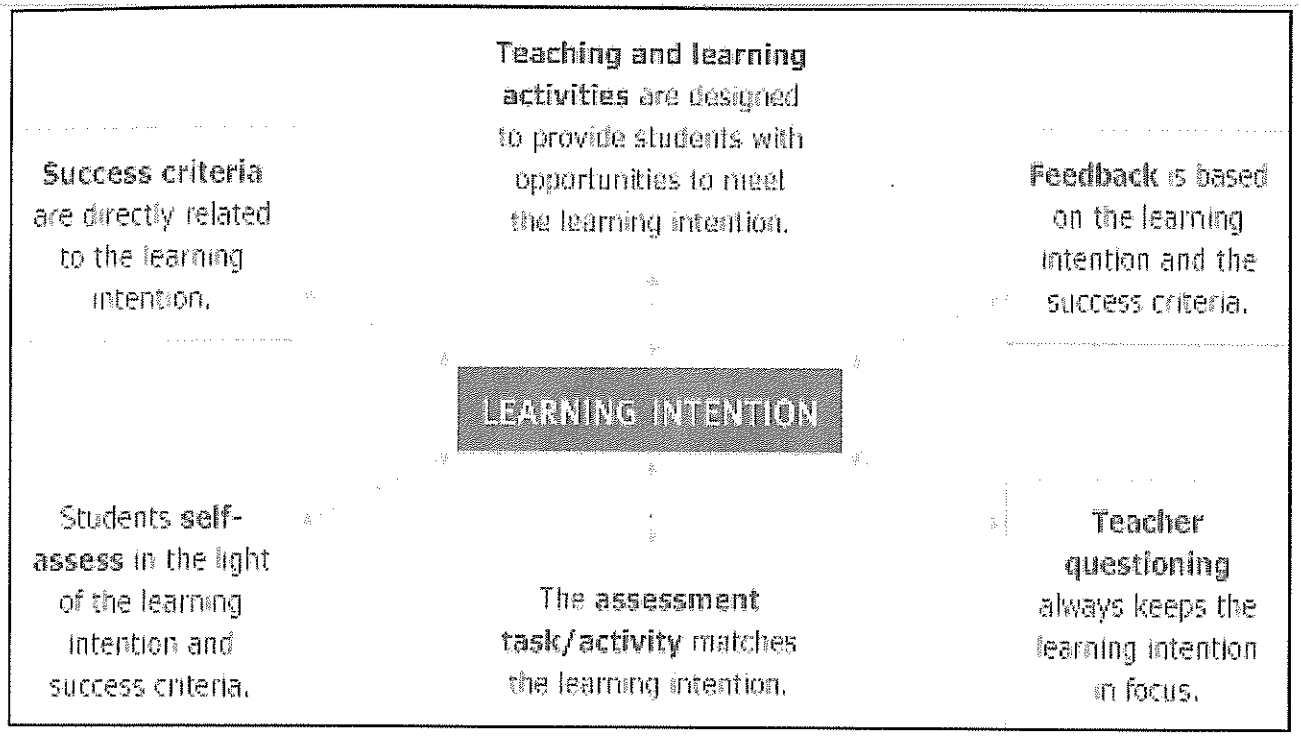
S6 Engage in professional learning.

6.2: Engage in professional learning and improve practice

Architecture of an effective English lesson

	COMPONENT	PURPOSE	WHAT TO DO
Tuning in	**CONNECTION: Introduce and connect**	Connect students to task by relating to past learning or experience. Explicitly state purpose of learning	Talk about how this topic fits with the class' previous learning and how it connects with the student's as learners ("Yesterday we were talking about...") State Learning Intention, Success Criteria and Purpose (WALT, WILF, TIB) for the lesson and write up on board to refer back to throughout the lesson.
Body of the lesson Teaching and learning cycle	**TEACHING: Model the process**	Focus on demonstration, modelling and metacognitive thinking Eg. To show how a good reader approaches text; Or show how to use a particular reading/numeracy strategy	Demonstrate the process using a think aloud. Eg you might choose from one of these strategies at a time; predicting, noticing our inner conversation and thoughts, noticing when we stray, connecting information in the text to own experience or other texts, question asking, creating mental images, determining importance, summarizing and synthesizing.
	ACTIVE INVOLVEMENT: Trying the skill	To provide scaffolded practise in the context of learning. To quickly check understandings	Students have a go alone or with a partner while still in the group setting. Orally practice strategy, talk about the strategy, question and plan what to do in independent reading or writing time.
	LINK: Independent practice	To help students transfer what has been taught as the focus of the mini lesson and the independent part of the workshop where they practise their skills as readers and writers.	Clearly state what you want to see the students doing in the independent part of the lesson. ("when you are reading/writing today, i want you to remember/have a go at...") Teacher interacts, monitoring individuals or a group.
Reflection	**CONCLUSION: Follow up:** **Sharing** **Celebrate** **Summarize**	To reinforce and extend the focus of the mini-lesson. Students and teacher can provide feedback and highlight quality work. Students can reflect on and articulate what they have learned that day.	At the end of the lesson/block, gather students back together and share an aspect of the independent part of the lesson ("who tried...; How did it work for you? I saw...trying this. What did you learn today") May be as a group, in partners. Celebrate achievements and progress.

Adapted from: Lucy Collins, The Art of Teaching Reading, Addison-Wesley: New York, 2000



Summary of Steps

- Clarify learning intentions at planning stage
- Make it an expectation for children
- Explain the learning intention, in 'child-speak' if necessary
- Invite children to say how we will know this has been done
- Write the success criterion or criteria
- The 'aside': say *why* this is an important thing to learn – the 'big picture'
- Get the children to read out the learning intention and success criteria.

Acknowledgement:
Clarke, Shirley; Unlocking Formative Assessment: Hodder Education, an Hachette UK Company, 2001

EXAMPLES OF LEARNING INTENTIONS

The learning intention is expressed in terms of knowledge, understanding and skills, and links directly with the relevant curriculum document.

The design of learning intentions starts with the answers to these questions.

- What do I want students to know?
- What do I want students to understand?
- What do I want students to be able to do?

A certain challenge exists for teachers in translating the knowledge, understanding and skills of a published curriculum into learning intentions whose language is accessible to their students, but time spent on this preliminary step is in itself excellent professional learning.

Some schools have made this 'unpacking' of the curriculum a focus of teacher meetings. The result, they claim, is that all teachers have a much better understanding of the curriculum itself, and there is an increased confidence in the consistent quality of teaching across classes.

Learning intentions that focus on knowledge

Thinking about the different kinds of knowledge, and being specific about the kind of knowledge that is required in a particular situation, will help teachers design their learning intentions. They consider, for instance:

- Knowledge about a particular topic *(know about different types of energy)*
- Knowledge of how something is done, of the steps involved in producing something *(know how to construct a pie graph)*
- Knowledge of why something happens *(know why rabbits are an ecological disaster)*
- Knowledge of what causes something to happen *(know what causes thunderstorms).*

Learning intentions that focus on skills

Learning intentions that focus on skills always start with the words 'to be able to' followed by a verb. For example:

- To be able to write a recount
- To be able to solve a problem using more than one strategy
- To be able to work a part of a team
- To be able to identify persuasive strategies used by the author or an argument
- To be able to experiment with a variety of media in order to achieve a stated effect.

Often learning intentions that focus on skills will also imply the acquisition of certain knowledge or understandings. For instance, to be able to write a recount, students must have a knowledge of the structures and features of a recount.

EXAMPLES OF LEARNING INTENTIONS

Learning intentions that focus on understanding

Understanding builds on knowledge and requires some kind of processing. For instance, a student might be able to list the causes of an historical event – thereby showing knowledge of them – but understanding requires analysis and, perhaps, interpretation.

Understanding, then, is of a higher cognitive order than knowledge and, in designing learning intentions, teachers ensure that students are exposed to learning which makes those higher demands as well as demands of a lesser nature. For example:

- Understand the causes of an historical event
- Understand the effects of diet on health
- Understand how persuasive language can position the reader to agree with the author
- Understand how the internet can be used for research purposes
- Understand what happens when our bodies consume carbohydrates
- Understand why X causes Y.

Assessment for Learning

http://www.assessmentforlearing.edu.au/professional_learning/learning_intentions/learning_examples_intentions.html

Education Services Australia

EXAMPLES OF LEARNING INTENTIONS

Examples of Learning Intentions

- **To know how** to construct a fair test in Science
- **To know how** to use a calculator to perform a particular function
- **To know how** to analyse a visual text
- **To know how** to write a recount

- **To understand how** to add two-digit numbers
- **To understand what** causes thunderstorms
- **To understand how** authors create character in narratives
- **To understand how** different effects can be achieved by combining different media in an artwork

- **To be able to** create music using found objects
- **To be able to** use the internet to get reliable information
- **To be able to** write a summary
- **To be able to** solve a series of numerical problems

Examples of Learning Intentions that don't work

(because they confuse the context and the skills, knowledge or understanding that is to be learned)

- To be able to write a newspaper report about pollution
  Where is the focus? On the newspaper report or on pollution?
  Either:
  To be able to write a newspaper report OR
  To understand the causes of (water) pollution

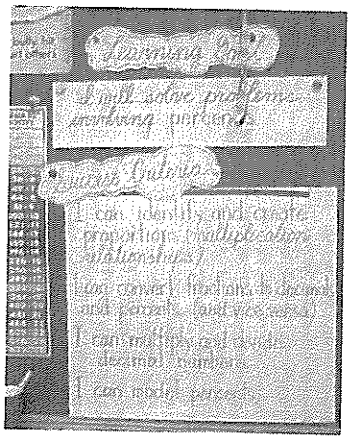
- To be able to multiply using repeated addition on a calculator
  Again, what does the teacher want the students to learn – how to use the strategy or how to use a calculator

- To analyse data about people's television viewing habits
  What skill does the teacher want the students to learn?

Acknowledgement:
Curriculum Corporation; Improving Student Achievement through Assessment for Learning Conference (Handout) Adelaide, March 2009

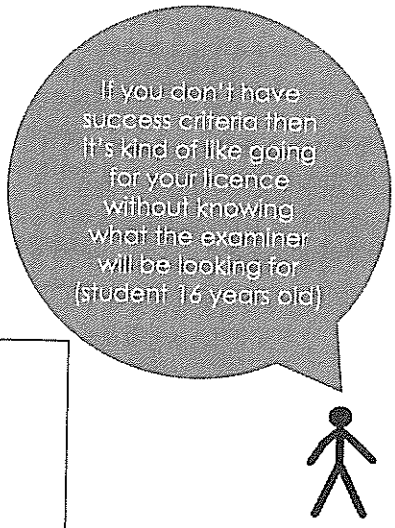
Success criteria

- Also taps into the underlying premises of formative assessment:
  - The belief that in order to succeed in their learning, students need to take responsibility for that learning
  - Therefore if success criteria are to be of any use to students they need to be written in the language that they will understand.



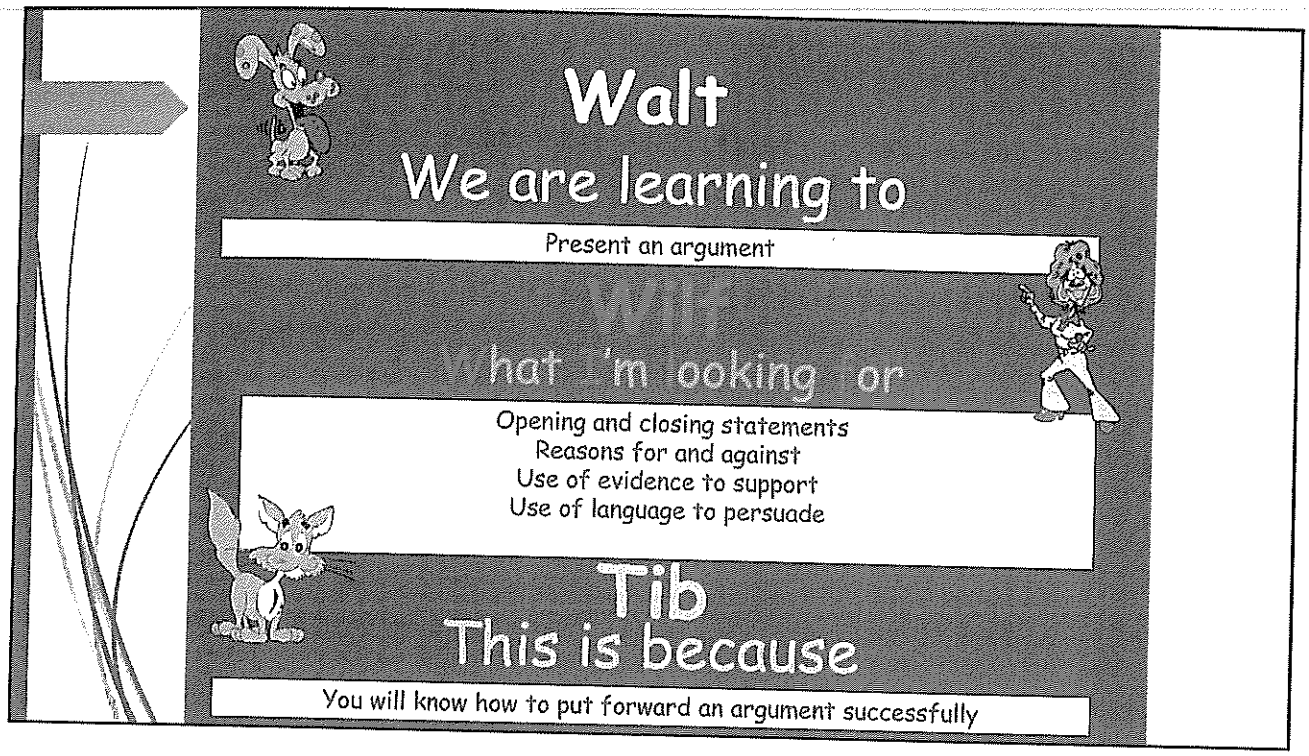
Rationale for sharing success criteria...

If students know how a particular task or activity is going to be assessed, is it reasonable to expect that they will be able to complete that task or activity to the teacher's satisfaction.



Sharing success criteria:

- ***Improves understanding***
- ***Empowers students***
- ***Encourages independent learning***
- ***Enables accurate feedback***



Summary

- To take more responsibility for their own learning, pupils need to know:
- **what** they are going to learn;
- **how** they will recognise when they have succeeded; and
- **why** they should learn it in the first place.

Curriculum Focus: Mathematics: Money (Weeks 1 & 2).
Year Level: 2
Term: 2

Outcome:

ACARA Mathematics Achievement Standards

- They associate collections of Australian coins with their value.
- They perform simple addition and subtraction calculations using a range of strategies.

Class Outcome (in student friendly language):

We will learn about Australian money. We will count, add and subtract sums of money using Australian coins and notes. We will look at the purpose and value of money and how people use money in their everyday lives.

Learning Intention:

ACARA Content Descriptors:

- Count and order small collections of Australian coins and notes according to their value (ACMNA034)
- Explore the connection between addition and subtraction (ACMNA029)
- Solve simple addition and subtraction problems using a range of efficient mental and written strategies (ACMNA030)

Learning Intentions:

Child friendly language: Use in each lesson or over a few lessons.

- We are learning about Australian money/ currency.
- We are learning how money is used in our community.
- We are exploring everyday activities and events that involve the use of money.
- We are learning about how and why we need money.
- We are learning about Australian coins and notes and the values of each.
- We are learning how to count and order coins.
- We are learning how to count and order notes.
- We are learning how to add and subtract coins.
- We are learning how to add and subtract notes.
- We are learning how to add and subtract coins and notes together.
- We are learning about different ways to add and subtract money.
- We are learning about how to shop and work out total costs and savings.

Success Criteria: How to recognise success

- I will be successful if I can identify the value of each Australian coin note.
- I will be successful if I demonstrate that I can count coins and notes.
- I will be successful if people can read and understand my money calculations.
- I will be successful if I can order coins and notes from smallest to largest based on their values.
- I will be successful if use vertical addition and subtraction with decimal points to calculate values of money.
- I will be successful if I can identify equal values in collections of coins or notes, such as two five-cent coins having the same value as one 10-cent coin
- I will be successful if I can count collections of coins or notes to make up a particular value, such as that shown on a price tag.

Evidence:

Formative Assessment:

- Student has identified all Australian coins and notes in their books
- Student can count and order small collections of Australian coins and notes.
- Solve simple addition and subtraction money tasks. This can be demonstrated during money maths games. E.g. Adding coins dice game, banking withdrawal game, shopping games.
- Combination of coins and notes activity. How many combinations of coins make up this amount of money? (Eg. $5= 1 $5 note, OR 2 x $2 and $1, OR 5 x $1 etc)

Summative Assessment:

- Using catalogue pictures, students add and subtract items from their shopping list. Students calculate totals of shopping and can work out change for 2-3 items.

Mathematics Proficiencies:

Understanding:	Problem Solving	Fluency	Reasoning
Values of coins and notes	Counting, Addition & subtraction of a collection of coins and notes.	Ability to recognise and calculate small sums of coins and notes mentally, using written methods and calculators.	Ability to choose appropriate combination of coins or notes to make purchases.

Learning Experiences:

- What do we know about money? Brainstorm/ Kidspiration task.
- Inquire into how and why we use money in our lives.
- Money dice making, rolling 10 times, adding totals. Roll 5 more times subtracting the coin amount each time from the total. Record each roll and calculation in Maths books.
- Banking with Ms Vidovich & Mr Carlino. You can only collect your money from the ban tellers once you have correctly calculated your money values. Coins and notes task.
- Shopping. Grocery shopping task. Catalogue pictures of 2 items. Add the sale price items. Look at the discounted price, add the savings (discount), work out how much it would have cost before discounts. How much did you save for the two items in total?
- Combination of coins and notes activity. How many combinations of coins make up this amount of money? (Eg. $5= 1 $5 note, OR 2 x $2 and $1, OR 5 x $1 etc)

Extension (Extending)	Everyone (Intention, at level)	Simplification (Enabling)
• Dice Game: Extra rolls, higher numbers, more complex sums • Include larger sums of money. • Banking: students must calculate their numbers to withdraw money from the bank but then spend their money to the closest cent using catalogues.	• What do we know about money? Brainstorm/ Kidspiration task. • Inquire into how and why we use money in our lives. Partner task • Money dice making, rolling 10 times, adding totals. Roll 5 more times subtracting the coin amount each time from	• Dice Game: less rolls, lower numbers, less complex sums • Use smaller sums of money. • Banking: students can

• Add extra items or trickier items to shopping lists, get students to calculate savings, by looking at discounts. • Game: Which combination of coins do I have? Give them a total number of coins that they need to find as many combinations of coins that make up that value. Eg. $7.65, this could be made by a $5, $2, 50c, 10c & 5c or 3 x $2, $1, 3 x 20c & 5c. How many combinations can they figure out?	the total. Record each roll and calculation in Maths books. • Banking with Ms Vidovich & Mr Carlino. You can only collect your money from the ban tellers once you have correctly calculated your money values. Coins and notes task. • Shopping. Grocery shopping task. Catalogue pictures of 2 items. Add the sale price items. Look at the discounted price, add the savings (discount), work out how much it would have cost before discounts. How much did you save for the two items in total? • Combination of coins and notes activity. How many combinations of coins make up this amount of money? (Eg. $5= 1 $5 note, OR 2 x $2 and $1, OR 5 x $1 etc)	calculate their numbers to withdraw money from the bank, less rolls of dice, assistance with addition and checking of numbers. Use of calculators if needed. • Less items to shopping lists. Simple addition and subtraction tasks • Game: Which combination of coins do I have? Students only need to do 2 combinations. Easier total of coins. E.g. $4.50

Materials/ Questions to differentiate:

Materials:

- Play coins and notes (Australian Currency)
- Catalogues
- Dice
- Maths Books for recording
- Maths Money templates
- Laptops for kidspiration

Questioning:

- Extension (Extending): When we cannot use real money how else can we purchase things? Explore online shopping, credit and debit cards. Large purchases like homes, where do we get the money for this? Loans.
- Extension (Extending): What different kinds of money can we use around the world. Can you do any calculations with this money and compare it to Australian money?

WHY REFLECT?

Reflection has numerous benefits for students:

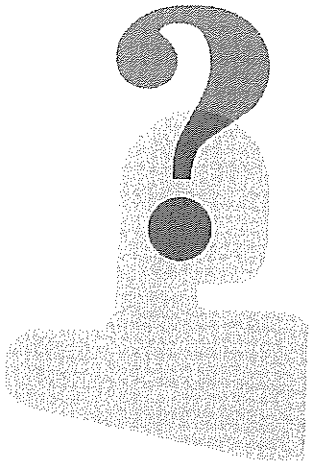
- **It deepens students' understanding** – encouraging them to probe their thoughts in more detail and to articulate what it is they know and still need to know
- It helps develop students' **understanding of themselves as learners** – their strengths, weaknesses and learning preferences
- It provides useful (and often immediate) **feedback and assessment data** for teachers
- It helps students understand more **about how they (and others) think** and leads to the capacity to modify and extend their thinking in subsequent learning episodes
- It **'slows down'** the teaching and learning pace in the classroom. Making time for reflection before, during and after experience provides greater depth and breadth to what is learned
- Learning to reflect can help students manage their behaviour and **monitor impulsivity**
- It builds students' capacity to be reflective **beyond** the classroom. The capacity to recall, process and evaluate learning is vital to lifelong learning
- By sharing reflective thinking with each other, students can gain **new insights** into what is being learned
- It can **widen the points of view** on a topic and expand the possibilities for thinking and understanding
- Reflective thinking can help students see the **purpose** in something they are doing or have done. It connects the student with the meaning behind the learning episode/s and therefore increases engagement
- Reflection can help **develop students' metacognitive skills** – being more conscious of how they think, what happens when they think and how they can regulate thinking in the future
- Reflection assists students in **transferring** what has been learned in one context to other contexts
- Reflection promotes **stillness, silence, space and peace** in the classroom – a vital element in what is otherwise a busy and often noisy environment
- Reflection can create a space for **'wondering'** – for imaginative and creative thinking.

Acknowledgement:
Murdoch, Kath; Take a Moment! 40 frameworks for reflective thinking: Seastor Education Consulting, 2005

SOME QUESTIONS TO PROMPT REFLECTION

- ? How do you feel?
- ? What did you learn?
- ? What did this make you think about or wonder?
- ? What was the most important part of this for you?
- ? What are you the most proud of?
- ? What did you do best?
- ? What surprised you?
- ? What did you learning that you didn't know before?
- ? What questions does this make you want to ask?
- ? What did you notice about your thinking?
- ? How did you go about doing this?
- ? How have your ideas changed?
- ? What would you like to find out more about?
- ? How will you do this differently next time?
- ? Why was this important to you?
- ? Why are you learning about this?
- ? How can you use this information in other ways?
- ? What would you have done differently if you could start again?
- ? How did you get to this point?
- ? What has helped you to do this? What has made it difficult?
- ? What inspired you?
- ? What moved you?
- ? What was the main message for you?

Acknowledgement:
Murdoch, Kath; Take a Moment! 40 frameworks for reflective thinking: Seastor Education Consulting, 2005



TEACHER PROMPT CARDS

WHOLE CLASS FOCUS

Today we are looking at ...
What do you know about ...?
Do you remember when ...?
Why do you think that would work?
How is this different/the same?
When could you use ...?
Watch me while I ...
Listen while I explain ...
When have you used this before?
What mathematics could you use?
How can you record this?
Can you find another way to record it?

REFLECTION TIME

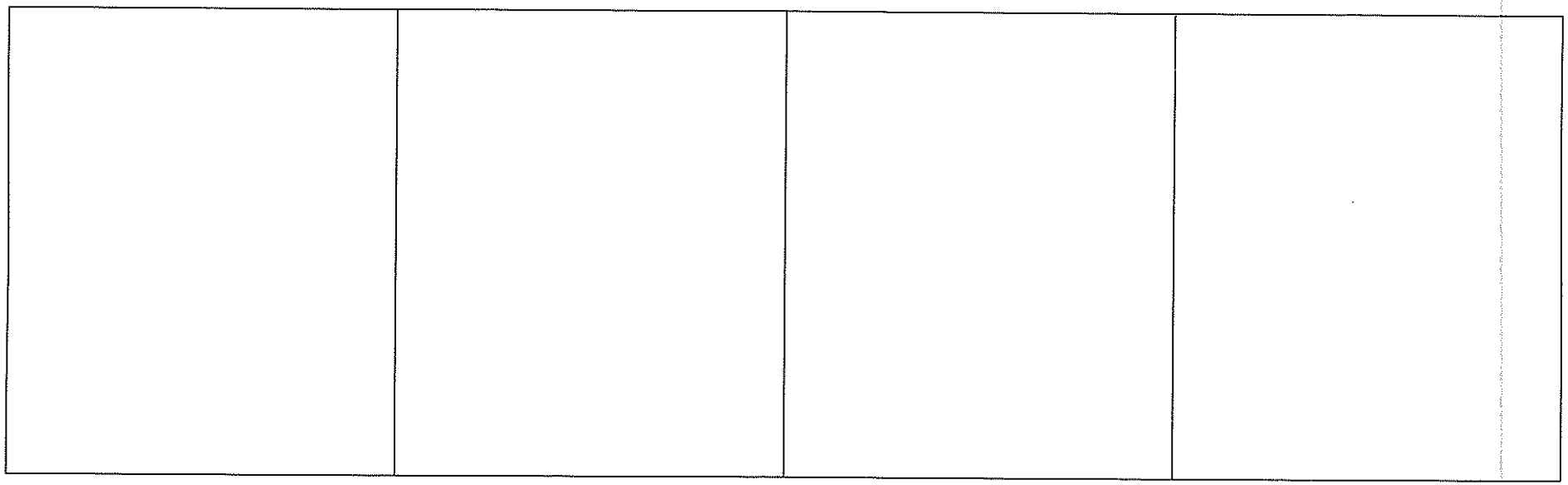
What do you now know about ...?
How is this different/the same?
When could you use ...?
When have you used this before?
How did you work it out?
What did you discover in maths today?
What advice could you give another student when completing this task?
What was something that interested you today?
What was something that was new for you?
How would you use the skill again?
What would you do next time?
Explain to me what you are thinking?

ROVING CONFERENCES

Show me ...
Tell me about ...?
How is this different/the same?
When could you use?
Watch me while I ...
Do you remember how we ...?
Let's try that now ...
Listen while I explain ...
Now you try ...
How do you know?
How did you work it out?
What happened when ...?
What do you think is going to happen?
What can you do next?
Explain to me what you are thinking.
What materials will help you with this problem?
How can you show me that what you think is correct?

Acknowledgement:
Hillbrick, Andrea; Maths Essentials Practical Tools, Tasks & Strategies: Curriculum Press, 2004

BEHIND THE DOOR



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