Workshop 3:

Knowing what to do with the diagnostic results from the Assessment Tool reports

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Intended Outcomes

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- Improved use of the Assessment Tool for informing teaching and learning practice
- The development of group learning plans with specific outcomes
- The development of individual learning plans

The ELN process

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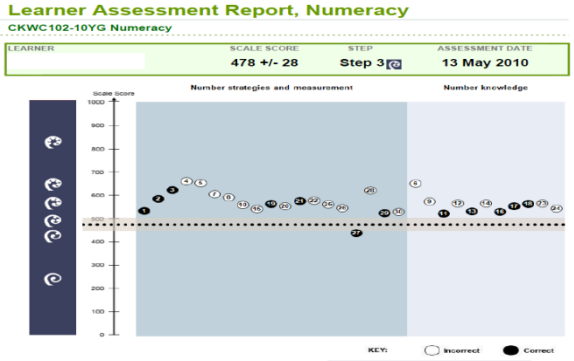
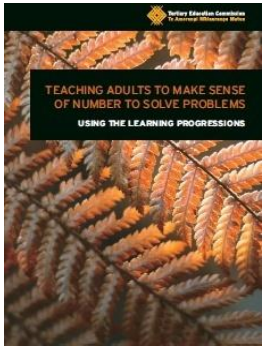
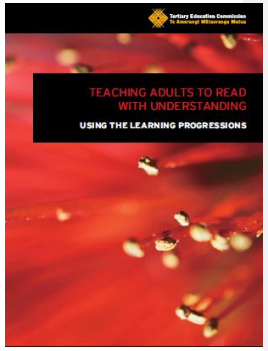
Know the Demands

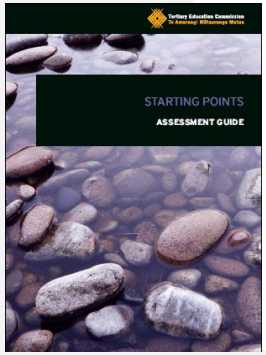
Know the Learner

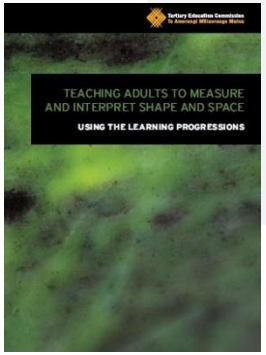


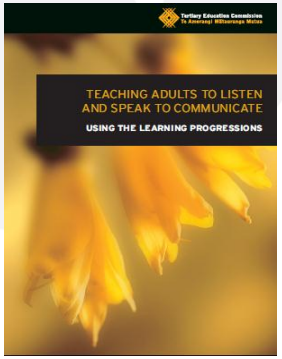
Know What to Do











Effective use of assessment

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- What assessment do you currently use?
- How do you analyse the results?
- How do you *use* the assessment results?

The Learning Progressions

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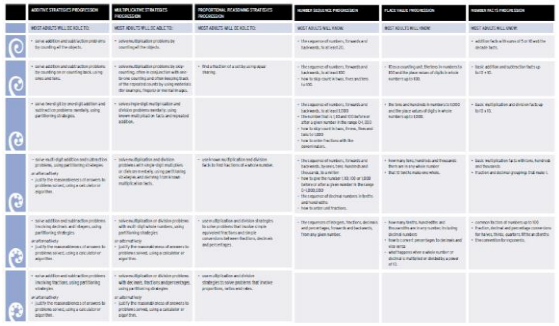
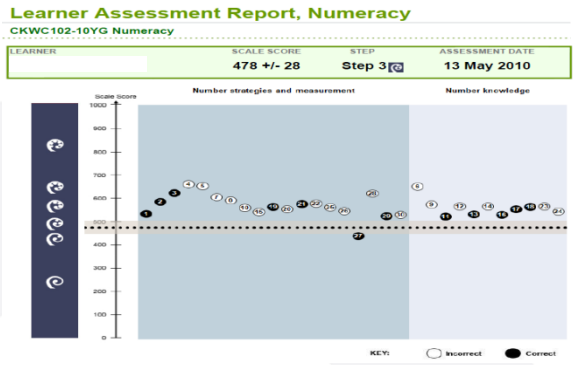
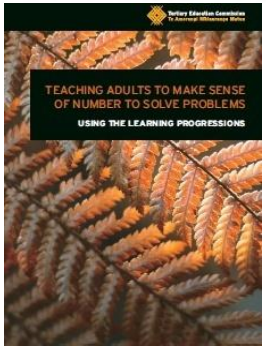
Know the Demands

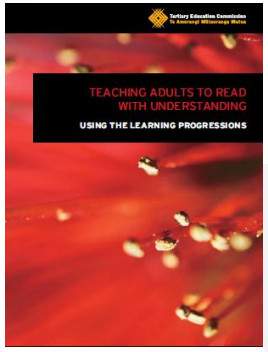


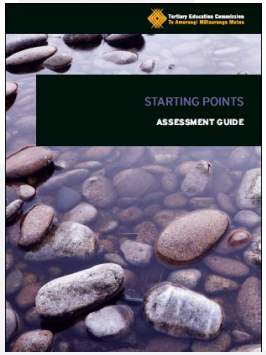
Know the Learner

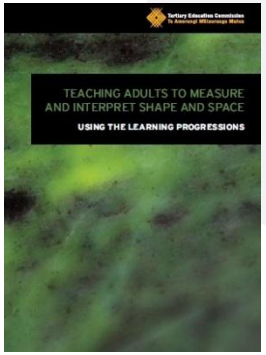


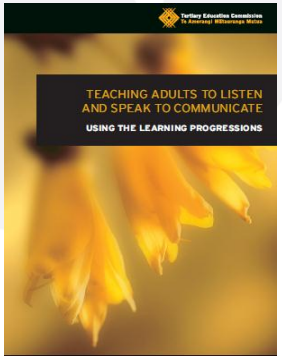
Know What to Do











Example task... for numeracy

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Retail assistant working in an up-market clothing store.

Primary numeracy tasks:

- Answer customer queries regarding discounted prices
- Enter correct amounts into electronic till and check the reasonableness of the total
- Collect and count ‘cash’ from customers and return correct amount

20% OFF

$31 - $80

15% OFF

$10 - $30

30% OFF

$81 - $120

Knowing the demands

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What will the following items cost?

A $30 dress with a 15% discount?

An $80 jacket with a 20% discount?

A $140 dress with a 30% discount?

Knowing the demands

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Identifying the demands is a process of:

- Determining what underpinning skills and knowledge are required to complete a task

- Determining the required expertise of those skills and knowledge on the Learning Progressions

Mapping the demands

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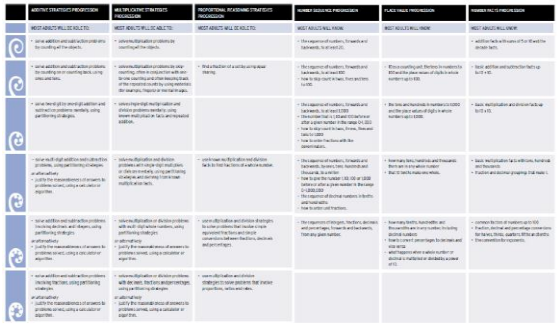
	ADDITIVE STRATEGIES PROGRESSION	MULTIPLICATIVE STRATEGIES PROGRESSION	PROPORTIONAL REASONING STRATEGIES PROGRESSION	NUMBER SEQUENCE PROGRESSION	PLACE VALUE PROGRESSION	NUMBER FACTS PROGRESSION
	MOST ADULTS WILL BE ABLE TO:	MOST ADULTS WILL BE ABLE TO:	MOST ADULTS WILL BE ABLE TO:	MOST ADULTS WILL KNOW:	MOST ADULTS WILL KNOW:	MOST ADULTS WILL KNOW:
	• solve addition and subtraction problems by counting all the objects.	• solve multiplication problems by counting all the objects.		• the sequence of numbers, forwards and backwards, to at least 20.		• addition facts with sums of 5 or 10 and the decade facts.
	• solve addition and subtraction problems by counting on or counting back, using ones and tens.	• solve multiplication problems by skip-counting, often in conjunction with one-to-one counting and often keeping track of the repeated counts by using materials (for example, fingers) or mental images.	• find a fraction of a set by using equal sharing.	• the sequence of numbers, forwards and backwards, to at least 100 • how to skip-count in twos, fives and tens to 100.	• 10 as a counting unit, the tens in numbers to 100 and the place values of digits in whole numbers up to 100.	• basic addition and subtraction facts up to 10 + 10.
	• solve two-digit by one-digit addition and subtraction problems mentally, using partitioning strategies.	• solve single-digit multiplication and division problems mentally, using known multiplication facts and repeated addition.		• the sequence of numbers, forwards and backwards, to at least 1,000 • the number that is 1, 10 and 100 before or after a given number in the range 0–1,000 • how to skip-count in twos, threes, fives and tens to 1,000 • how to order fractions with like denominators.	• the tens and hundreds in numbers to 1,000 and the place values of digits in whole numbers up to 1,000.	• basic multiplication and division facts up to 10 x 10.
	• solve multi-digit addition and subtraction problems, using partitioning strategies *or alternatively* • justify the reasonableness of answers to problems solved, using a calculator or algorithm.	• solve multiplication and division problems with single-digit multipliers or divisors mentally, using partitioning strategies and deriving from known multiplication facts.	• use known multiplication and division facts to find fractions of a whole number.	• the sequence of numbers, forwards and backwards, by ones, tens, hundreds and thousands, to a million • how to give the number 1, 10, 100 or 1,000 before or after a given number in the range 0–1,000,000 • the sequence of decimal numbers in tenths and hundredths • how to order unit fractions.	• how many tens, hundreds and thousands there are in any whole number • that 10 tenths make one whole.	• basic multiplication facts with tens, hundreds and thousands • fraction and decimal groupings that make 1.
	• solve addition and subtraction problems involving decimals and integers, using partitioning strategies *or alternatively* • justify the reasonableness of answers to problems solved, using a calculator or algorithm.	• solve multiplication or division problems with multi-digit whole numbers, using partitioning strategies *or alternatively* • justify the reasonableness of answers to problems solved, using a calculator or algorithm.	• use multiplication and division strategies to solve problems that involve simple equivalent fractions and simple conversions between fractions, decimals and percentages.	• the sequences of integers, fractions, decimals and percentages, forwards and backwards, from any given number.	• how many tenths, hundredths and thousandths are in any number, including decimal numbers • how to convert percentages to decimals and vice versa • what happens when a whole number or decimal is multiplied or divided by a power of 10.	• common factors of numbers up to 100 • fraction, decimal and percentage conversions for halves, thirds, quarters, fifths and tenths • the convention for exponents.
	• solve addition and subtraction problems involving fractions, using partitioning strategies *or alternatively* • justify the reasonableness of answers to problems solved, using a calculator or algorithm.	• solve multiplication or division problems with decimals, fractions and percentages, using partitioning strategies *or alternatively* • justify the reasonableness of answers to problems solved, using a calculator or algorithm.	• use multiplication and division strategies to solve problems that involve proportions, ratios and rates.			

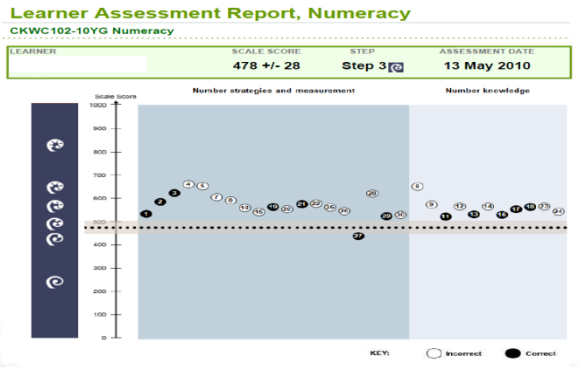
Strategies ⟷ Knowledge

The Learning Progressions

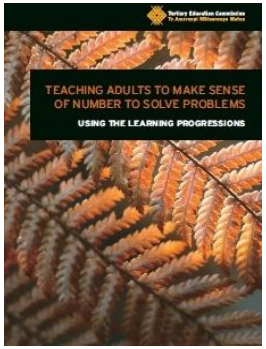
Know the Demands

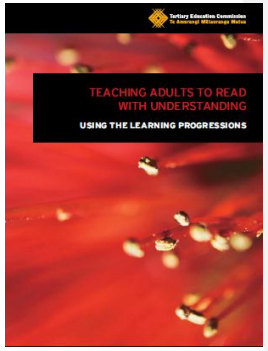


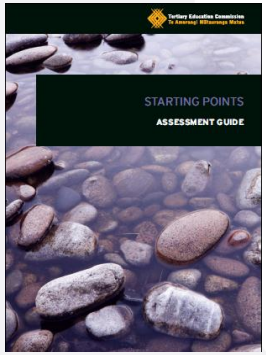
Know the Learner

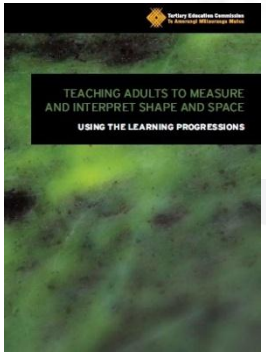


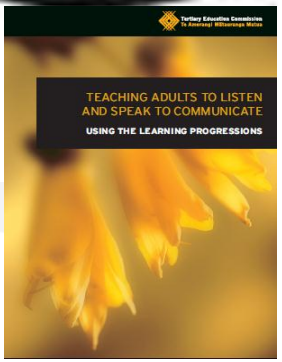
Know What to Do



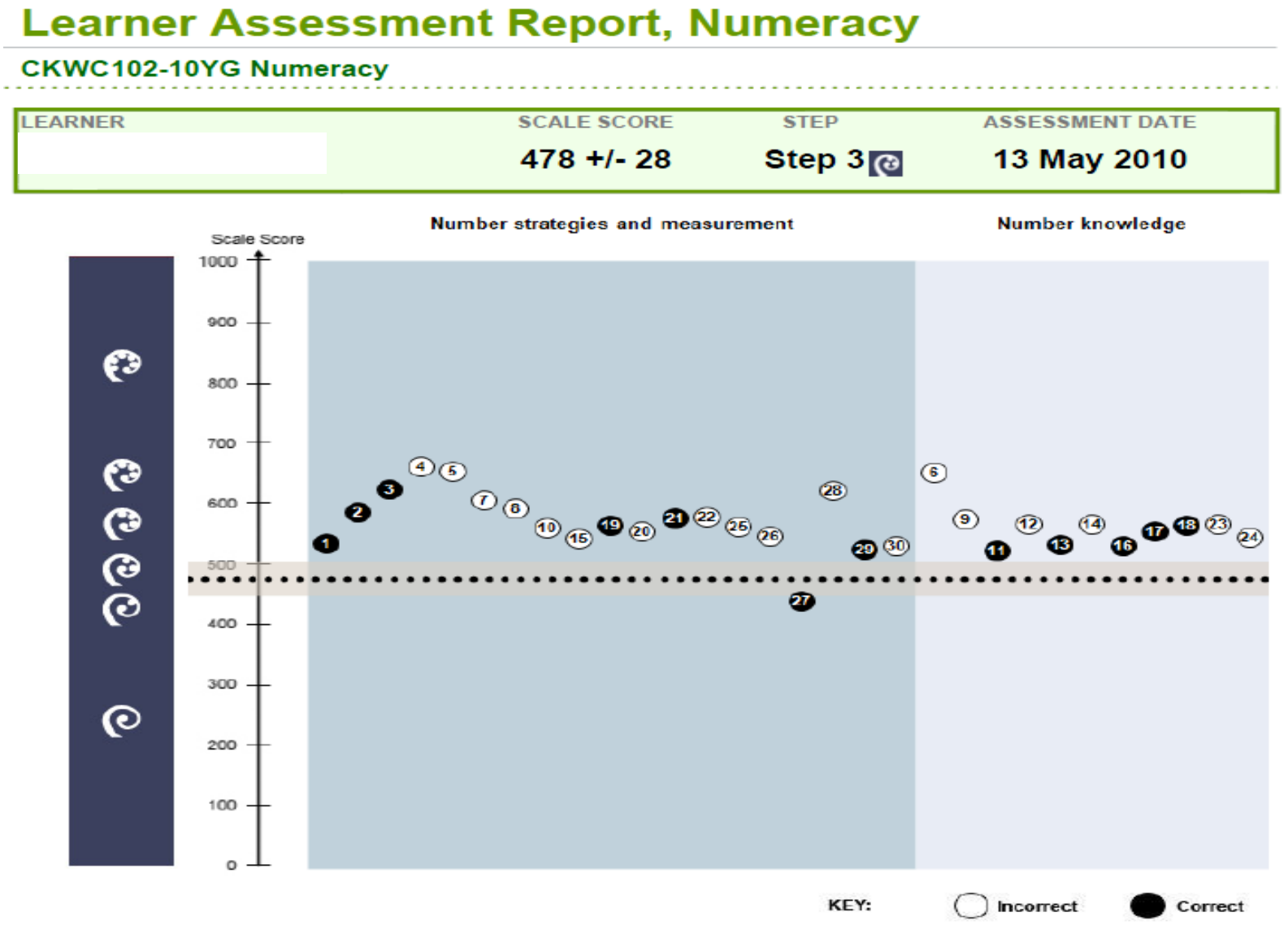








Knowing the learner



Movement *across* the progressions

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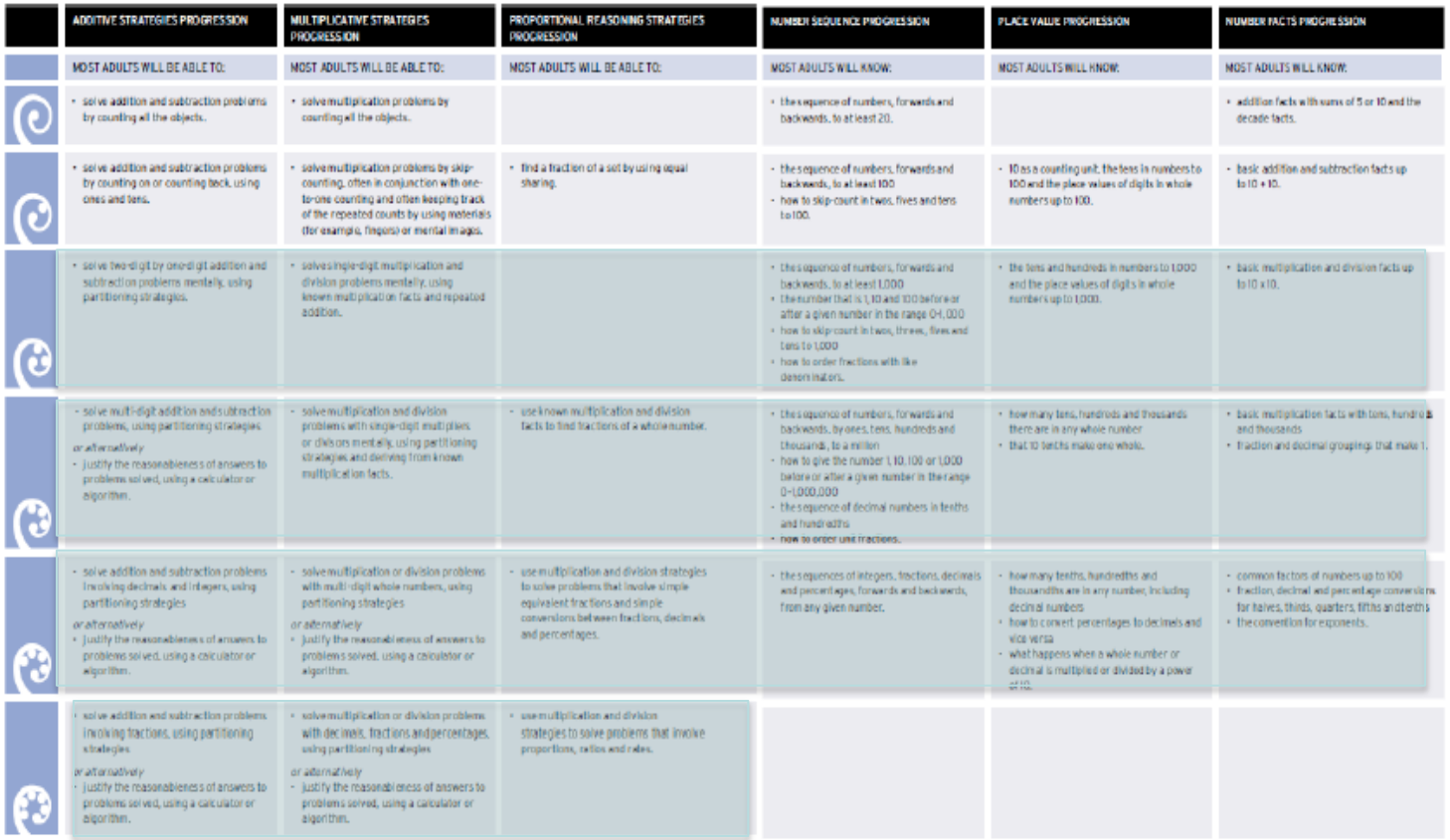

	ADDITIVE STRATEGIES PROGRESSION	MULTIPLICATIVE STRATEGIES PROGRESSION	PROPORTIONAL REASONING STRATEGIES PROGRESSION	NUMBER SEQUENCE PROGRESSION	PLACE VALUE PROGRESSION	NUMBER FACTS PROGRESSION
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Strategies ⟷ Knowledge

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Make Sense of Number to Solve Problems
Multiplicative Strategies progression

- solve single-digit multiplication and division problems mentally, using known multiplication facts and repeated addition.

6 x 5

8 x 4

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Make Sense of Number to Solve Problems
Multiplicative Strategies progression

- solve multiplication or division problems with decimals, fractions and percentages, using partitioning strategies

or alternatively

- justify the reasonableness of answers to problems solved, using a calculator or algorithm.

15% of $80

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Group Plans and Learning Sequences

Designing outcome statements

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Outcomes	
Action word	Solve
Identify L&N skill	multiplication problems with percentages using partitioning strategies relating to
Define course content area	identifying the sale price of discounted items

Writing a learning sequence

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Writing an ELN teaching plan for a learning sequence

Action word (identify, develop, practice, apply, explain, improve, evaluate, retell)	**Solve**	
Identify LN skill (progression, step task)	**multiplication problems with percentages using partitioning strategies relating to**	
Course content area	**identifying the sale price of discounted items**	
Teaching sequence	Approach	Resource
	1. Discuss and apply a range of strategies to solve a discount problem.	Discount questions
	2. Partition numbers and recombined to multiply multi-digit numbers with single digits.	Postits
	3. Mentally partition and recombine double digit multiplication sums.	Discount pamphlets

Writing a learning plan (literacy)

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Action word (identify, develop, practice, apply, explain, improve, evaluate, retell)	Apply	
Identify LN skill (progression, step task)	comprehension strategies to locate, organise and summarise information relating to	
Course content area	product information pamphlets.	
Teaching sequence	Approach	Resource
	1. Discuss and apply a range of comprehension strategies to product pamphlets.	Range of catalogues and pamphlets
	2. Use text features to identify main points	Full page information texts/graphic organisers
	3. Categorise and summarise key information in texts.	Catalogues/graphic organisers

Writing a learning plan

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Action word (identify, develop, practice, apply, explain, improve, evaluate, retell)	To calculate and convert	
Identify LN skill (progression, step task)	between fractions, decimals and percentages relating to	
Course content area	a clothing retail environment by	
Teaching sequence	Approach	Resource
	1. Recognising and linking common fractions to common decimals and percentages	String line; fraction, decimal and percent cards
	2. Understanding the unit values of decimals and percentages	Ones, tens and hundreds cards
	3. Practice solving discounted prices of items on special.	Advertisements

Retail programme ELN outcomes

Action word (identify, develop, practice, apply, explain, improve, evaluate, retell)	Solve

Action word (identify, develop, practice, apply, explain, improve, evaluate, retell)	Calculate and convert

Action word (identify, develop, practice, apply, explain, improve, evaluate, retell)	Apply
Identify LN skill (progression, step task)	comprehension strategies to locate, organise and summarise information relati
Course content area	product information pamphlets.

Teaching sequence	Approach	Resource
	1. Discuss and apply a range of comprehension strategies to product pamphlets.	Range of catalogues and pamph
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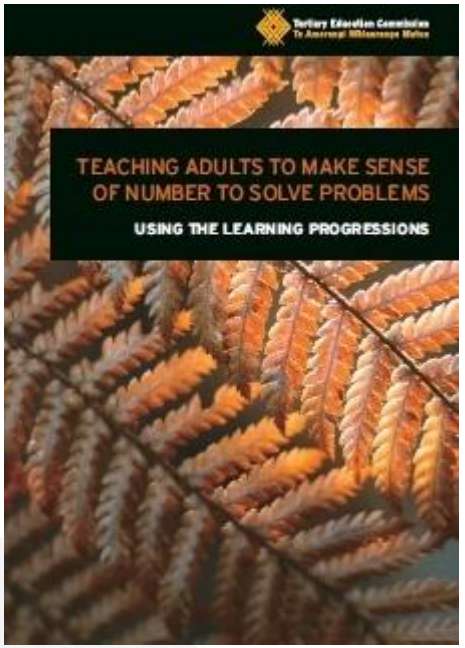
Knowing what to do

Sequencing Learning Activities

- The Learning Progression books are designed to provide you with specific strategies and activities to develop learners skills

- Each book has a graph that aligns activities with specific outcome objectives

Using the resource books



Activities for teaching and learning

Number Strategies progressions

	ADDITIVE	MULTIPLICATIVE	PROPORTIONAL REASONING
	Counting on and back, page 19	Skip-counting, page 32	
	Addition and subtraction strategies I, page 22	Understanding multiplication, page 35 Deriving multiplication and division facts, page 37	
	Addition and subtraction strategies II, page 25	Multiplication strategies, page 39 Division strategies, page 41	Ratios I, page 53
	Adding decimals, page 28 Subtracting decimals, page 30	Multiplying options, page 43 Dividing options, page 46	Ratios II, page 58
		Multiplying with decimals, page 49 Dividing with decimals, page 51	Rates and proportions, page 64

Activities to support step 3

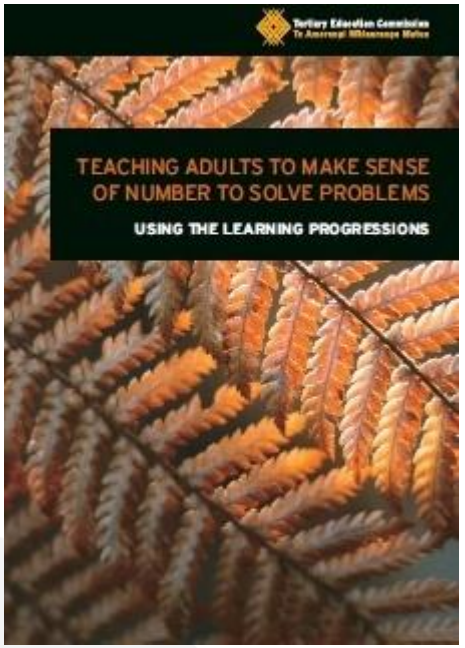
Activities to support step 4

Activities to support step 5

Using the resource books

Number Knowledge progressions

	NUMBER SEQUENCE	PLACE VALUE	NUMBER FACTS
	Numbers to 100, page 67	Introducing place value, page 73	Addition and subtraction facts, page 80
	Understanding fractions I, page 69	Whole number place value, page 76	Multiplication and division facts, page 82 See also: Understanding multiplication, page 35 Deriving multiplication and division facts, page 37
	Understanding fractions II, page 70 Understanding fractions III, page 71		Estimating facts, page 85
	See also: Decimal number place value, page 78	Decimal number place value, page 78 See also: Connecting percentages, decimals and fractions, page 87	Connecting percentages, decimals and fractions, page 87



Activities to support step 3

Activities to support step 4

Activities to support step 5

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Activities for teaching and learning

Number Strategies progressions

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	Addition and subtraction strategies I, page 22	Understanding multiplication, page 35 Deriving multiplication and division facts, page 37		Understanding fractions I, page 69	Whole number place value, page 76	Multiplication and division facts, page 82 See also: Understanding multiplication, page 35 Deriving multiplication and division facts, page 37
	Addition and subtraction strategies II, page 25	Multiplication strategies, page 39 Division strategies, page 41	Ratios I, page 53 Fractions of numbers I, page 55	Understanding fractions II, page 70 Understanding fractions III, page 71		Estimating facts, page 85
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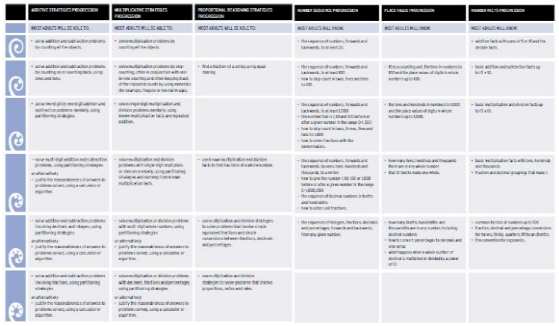
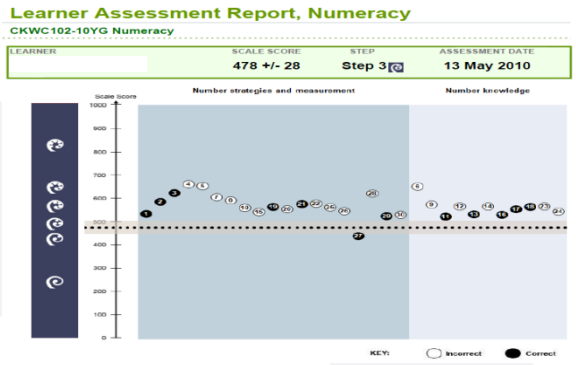
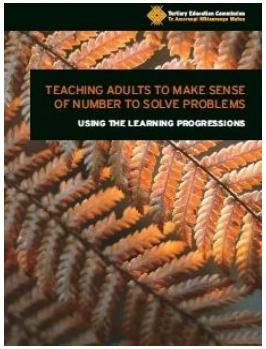
Know the Demands

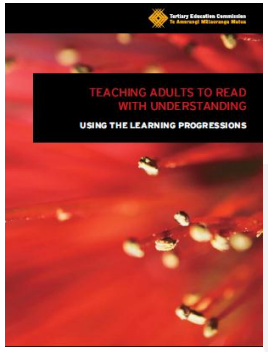


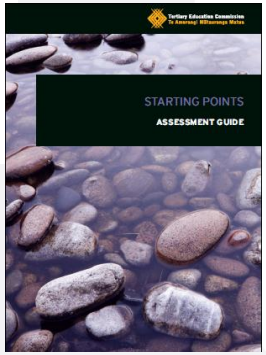
Know the Learner

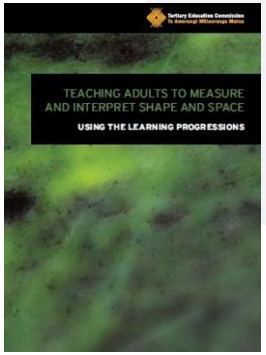


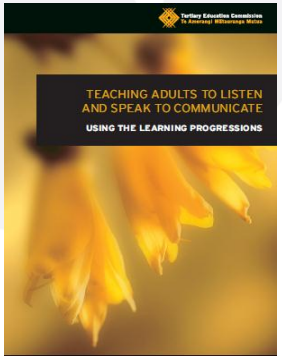
Know What to Do











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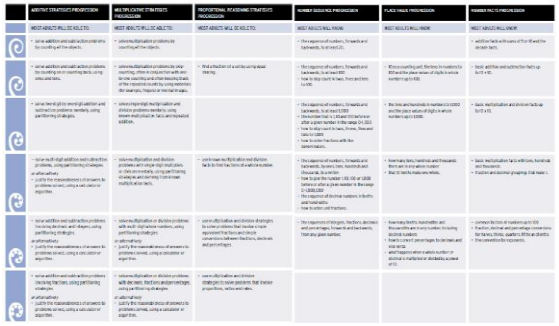

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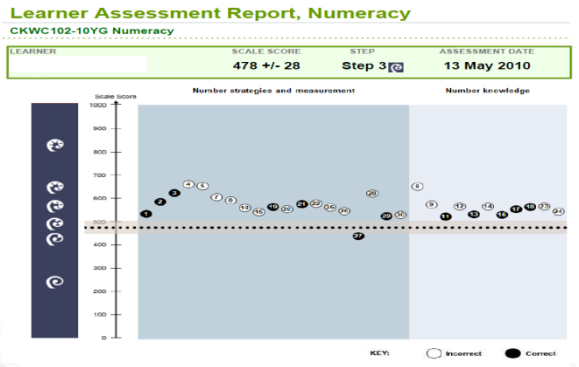

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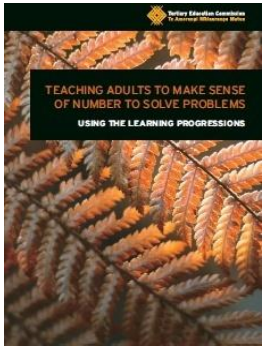

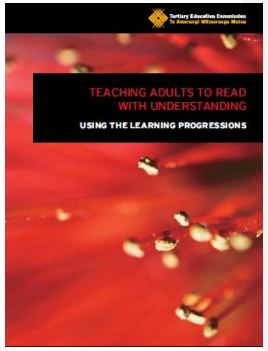

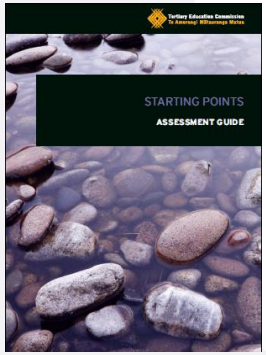

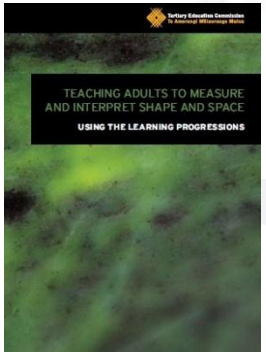

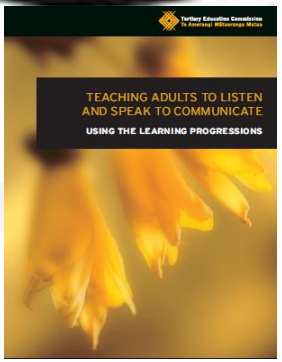

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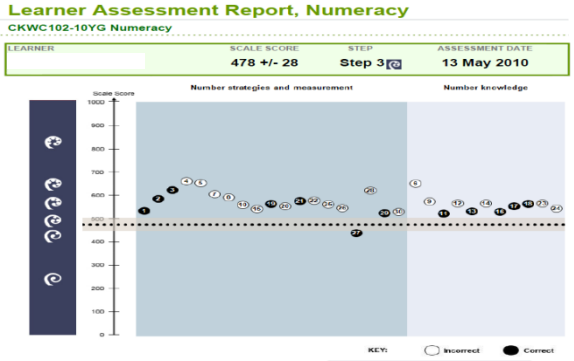

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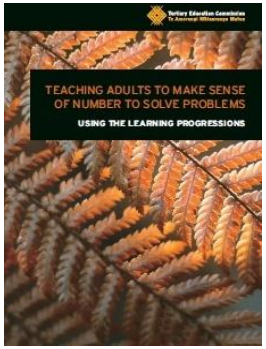

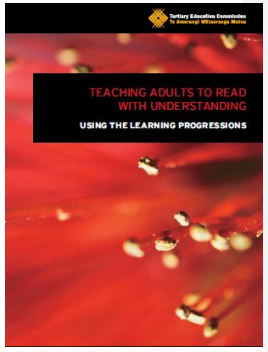

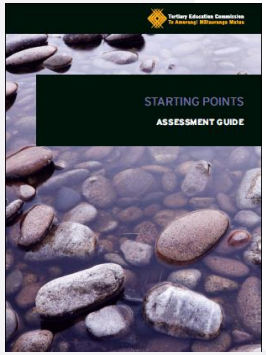

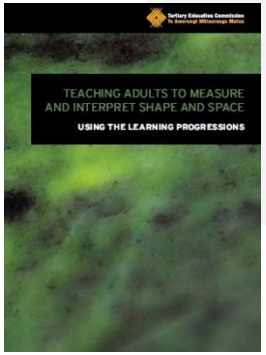

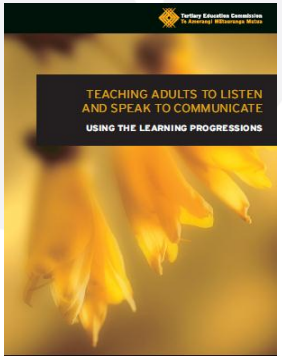

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Summary

- Improved use of the Assessment Tool for informing teaching and learning practice
- The development of group learning plans with specific outcomes
- The development of individual learning plans