Cycle 1 - Mathematics Planning

Year 1 – Group 1		Year 2 – Group 2	
TERM 1		**TERM 1**	
Number and Numeration		**Number and Numeration**	
	#Target Behaviour/s		#Target Behaviour/s
Counting and Recognizing Numbers • Say and use the number names in order in familiar contexts such as number rhymes, songs, counting games and activities (1-3), then (3-5). • Count a number of objects up to 3, then 4. • **Begin** to realize when counting that size, position, and type do not affect the number of objects. (*practical work*) • Sort for 2 types, then 3 and 4.*(e.g. colour red/blue*) • Count objects in a line or arranged randomly by touching by putting them in a line and touching.(*practical work*) • Begin to write numerals (1, 2), then (3, 4) correctly tracing from top to bottom in a continuous line where possible. *Problem Solving* • Recognize and recreate simple patterns. (*AB, ABC, ABA etc*) • Solve simple problems or puzzles in a practical context e.g. choosing the correct piece to	2ai 2bi 2bi 1b 2ai 2ci 1d 7a	• Say and use the number names in order in familiar contexts such as number rhymes, songs, stories, counting games and activities to five, then ten. • Recite the number names in order, continuing the count forwards or backwards from a given number. • Count reliably up to 5 everyday objects, giving just one number name to each object. • Count reliably up to 10 objects, (*count the same number of different objects, count out a specific no. of things from a collection of things, count objects in a line and those arranged randomly*) • Recognize up to 5 objects without counting e.g. fingers on one hand • Recognize and write numerals 1 to 5, then 1 to 9. • Compare and order using language such as more or less, greater or smaller, most, least, fewest and say which number lies between two given numbers.	2ai 2ai 2bi 2bi 2ai 2ci 1c

complete a jig-saw puzzle; choosing three items from the toy corner; choosing fruits or animals to place in an appropriate set.
• Sort and match objects, pictures or themselves. e.g. animals that give food.
	1a & 1b	*Adding and Subtracting*
		• **Begin** to use the vocabulary involved in adding and subtracting: -
		  • In practical contexts
		  • By modelling with apparatus
		  • By modelling with fingers
		  • Find one more or one less than a given number from 1 to 10.
		Problem Solving
		• Sort and match objects, pictures or the children themselves justifying decisions made.
		• Solve problems or puzzles in a practical context and respond to "What can I try next?" e.g. choosing a domino with a total of 7 spots, distributing 4 people in a toy vehicle.
			5bi
			
			1a
			
			7a

RATIONAL NUMBERS		**RATIONAL NUMBERS**	
		• Divides regular plane shapes into equal parts (*practical work*)	9
MEASUREMENT		**MEASUREMENT**	
• Begin to understand and use vocabulary related to time. (*day/night; today/tonight; bedtime/playtime; ; noon; morning/afternoon/evening*) • Put sets of objects in order of size.(*Use stories such as 'The Three Bears'; 'Three Little Pigs'*)	11aii 10b	• Use language such as bigger to describe the size of plane shapes (*circle, square, triangle, rectangle*) • Begin to understand and use the vocabulary of time. (*Names and days of the week, morning, afternoon, night, today, yesterday, tomorrow, birthday, holiday, recess time, now, soon, before after, next, last, quickly, slowly*).	10a 11aii 11ai

		• Sequence familiar events in their day or in a well-known story.	
GEOMETRY		**GEOMETRY**	
Spatial Sense • Use everyday words to describe position. *(in/out; up/down; inside/outside; top/bottom; high/low), direction (describe a walk around the school and its grounds in terms of directions) and movement (Link with Physical Education*)	13d	• Use a variety of shapes to make models, pictures and patterns and describe them. (*practical work*) • Talk about, recognize and recreate simple patterns e.g. Simple repeating or symmetrical patterns in the environment. • Recognize and name solid shapes such as cube, cone, and sphere that can be seen in the environment. • Make models using shapes that vary in shape, size and texture, describe the model and say what shapes have been used. *Spatial Sense* • Use everyday words to describe position (*e.g. beginning, end, between, above, below*)	13a 13b 13a 13b 13d

Year 1 – Group 1		Year 2 – Group 2	
TERM 2		**TERM 2**	
Number and Numeration (*Consolidate work from Term One***)**	**#Target Behaviour/s**	**Number and Numeration (***Consolidate work from Term One***)**	**#Target Behaviour/s**
Counting and Recognizing Numbers • Say and use the number names in order in familiar contexts such as number rhymes, songs, counting games and activities. (*Review 1 – 5 continue to 7*) • Count reliably a set of objects up to 5, then 7 by leaving them in position and touching them and then by counting systematically without touching them, e.g. from top to bottom, left to right. • Recognize counting errors made by others. (*e.g. missing out an object, counting an object twice*) • **Begin** to realize when counting that size, position, and type do not affect the number of objects. • Sort for colour (*red*), shape (*round*); sort for colour (*red/blue*), shape (round/square) and taste • Begin to write numerals (*1 – 5*), then (*1 – 7*) correctly tracing from top to bottom in a continuous line where possible. • Understand and use the language to compare in practical situations. (*e.g. if there are more/ fewer girls in the group*)	2ai 2bi 2bi 2bi 1b 2ci 1c	*Counting and Recognizing Numbers* • **Begin** to recognize 'none' and 'zero' in stories and rhymes when counting from 0 to 10. • Count reliably in other contexts, such as clapping sounds or hopping movements. • Order a given set of numbers e.g. the set of numbers from 1 to 9 given in random order. • Count in twos. • Estimate a number in the range that can be counted reliably, then check by counting. • **Begin** to say and use number names in order in familiar contexts to 31. (*using the calendar*) • Recognize numerals beyond 10. • **Begin** to understand and use ordinal numbers in different contexts. *Adding and Subtracting* • **Begin** to relate addition to combining of two groups of objects, counting all objects. • **Begin** to relate addition to counting on. • **Begin** to relate the addition of doubles (up to 6) to counting on. • Separate (partition) a given number of objects (*2 – 6*), then (*6 – 10*) into two groups. • **Begin** to relate subtraction to 'taking away'	2bi 2bi 2ai 2bvi 2bi 2aii 3c 5a 5a 5a 5a

Problem Solving • Use developing mathematical ideas and methods to solve practical problems involving counting and comparing in a real or role-play context. (*e.g. Are there enough party bags? How can we share these blocks fairly?*) • Make simple estimates and predictions e.g. playing 'concentration' games to find matching pairs, patterns or numbers; saying which numeral or shape is hidden in a 'feely' bag. *(practical work*)	7a 4a	and counting how many are left. • Remove a smaller number from a larger and find how many are left by counting back from the larger number. *Problem Solving* • Make simple estimates and predictions e.g. say what is hidden when an element in a pattern is covered. • Begin to understand and use the vocabulary related to money. (*coin, cent, guilder, dollar, price, cost, pay change, how much?*) • Sort coins. • Use coins in role-play to pay and give change. • Use developing mathematical ideas and methods to solve practical problems involving counting and comparing in a real or role-play context.	5a 5a 4a 12ai 1b 12b 12b
RATIONAL NUMBERS		**RATIONAL NUMBERS**	
		• Identifies a whole set of objects.(*e.g. a bunch of grapes*)	9
MEASUREMENT		**MEASUREMENT**	
• **Begin** to know the days of the week and key times of the day. (*e.g. school starts at half past seven (seven-thirty*) • **Begin** to collect and organize information numerically. (*simple table or chart with teacher guidance*)	11aii 8ai	• **Begin** to know the days of the week in order. • Read o'clock time. • Use language such as longer or shorter to compare quantities by making direct comparisons of lengths. • Put sets of objects in order of size • Use language such as heavier or lighter to compare two or more quantities by making direct comparisons of mass.	11biii 11bi 10a 10b 10a

		• Collects and organizes information numerically. (*block graphs*)	8ai
GEOMETRY		**GEOMETRY**	
• **Begin** to name shapes (*circles/squares*) and use them to make models, pictures and patterns. (*practical work*) *Spatial Sense* • Use everyday words to describe position. (*front/back; side; before/behind; first/last then first to fifth*) • Use everyday words to describe direction. (*around/through*)	13a 13d 13d	*Spatial Sense* • Use everyday language to describe direction and movement. (*combine with Physical Education lessons*)	13d

Year 1 – Group 1		Year 2 – Group 2	
TERM 3		**TERM 3**	
Number and Numeration (*Consolidate work from Term Two***)**	**#Target Behaviour/s**	**Number and Numeration (***Consolidate work from Term Two***)**	**#Target Behaviour/s**
Counting and Recognizing Numbers • Say and use the number names in order in familiar contexts such as number rhymes, songs, counting games and activities (*Review 1 – 7 continue to 9 then 10*) • Count reliably a set of objects up to 9, then 10. • Sort for colour (*red/blue/green*) then (*red/blue/green/yellow*) and shape (*round/square/triangular*) and texture (*practical work*) • **Begin** to write numerals (1 – 9) correctly tracing from top to bottom in a continuous line where possible. • **Begin** to understand ordinal numbers in different contexts. (*e.g. who is second in line?*) • Say the number, which is one more or one less than a given number. • Find out by counting which of two collections has more/fewer objects.	2ai 2bi 1b 2cii 3c 1c 1c	*Counting and Recognizing Numbers* • **Begin** to identify odd and even numbers in practical situations • **Begin** to count in fives. • **Begin** to count in tens to 100 *Adding and Subtracting* • Find a total by counting on when one group of objects is hidden. • Begin to find out how many have been removed from a larger group of objects (up to 10) by counting up from a number. • Select two groups of objects to make a given total (to 10). • Work out by counting how many more are needed to make a larger number (from 10). • Uses the '+', '-' and '=' signs (*Much of this work is review and very practical using the work-mats or a five minute oral review before a Math lesson.*)	2a 2bvi 2bvi 5a 5a 5a 5a 5bi
RATIONAL NUMBERS		**RATIONAL NUMBERS**	

• Identify a whole object • Identify equal parts.	9 9	• Divide regular plane shapes into halves, then quarters. • Finds one half of a set of objects (up to 10 then 20)	9 9
MEASUREMENT		**MEASUREMENT**	
• **Begin** to be aware of the duration of time (*always/never; putting things away before a count from 1 – 10; early/late; old/young; now/later; fast/slow*) • Begin to know the days of the week in order and sequence familiar events (*arranging picture cards; events in a story; key events*).	11ai 11aii	• Use language such as more or less to compare two or more quantities by making direct comparisons of capacities by filling and emptying containers.	10b
GEOMETRY		**GEOMETRY**	
• Name shapes (*circles/squares/triangles*) and use them to make models, pictures and patterns.	13a, 13b		

Year 3 – Group 3		Year 4 – Group 4	
TERM 1		**TERM 1**	
Number and Numeration	**#Target Behaviour/s**	**Number and Numeration**	**#Target Behaviour/s**
• Know the number names and recite them in order to 30, from and back to zero and count reliably to 30 objects. • Count on and back in ones from any small number. • Count in twos from zero, then one and **begin** to recognize odd and even numbers to 20 as 'every other number'. • Count in steps of 5 from zero to 20 or more, then back again. • Count on and back in tens to and from 100. • Read and write numerals from 0 – 30. • **Begin** to know what each digit in a two-digit represent. Partition a 'teens' number into a multiple of 10 and ones (TO). • Understand and use the vocabulary of comparing and ordering numbers, including ordinals to at least 20. • Use the = sign to represent equality.	2aii 2bii 2bvi 2bv 2bvi 2ciii 3a 3b, 3c	• Say the number names in order to at least 100, from and back to zero. • Count reliably up to 100 objects by grouping them in tens, fives. • Describe and extend simple number sequences: count on or back in ones or tens, starting from any two-digit number. • Count on in steps of 5 to at least 30 from and back to 0, then from and back from any given number. • Begin to recognize two-digit multiples of 10 and 5. • Read and write whole numbers to at least 100 in figures and words. • Know what each digit in a two-digit number represents including 0 as the place holder and partition two-digit in numbers into a multiple of ten and ones (T O). **Begin** with three-digit numbers.	2aiii 2biv 2d 2bvi 6a 2civ 2cv

• Compare two numbers, say which is more or less, and give a number that lies between them. • Within a range of 0 – 30 say the number that is 1more or less than any given number. • Order numbers to at least 30, and position them on a number track. • Give a sensible estimate of a number of objects that can be checked by counting (*e.g. up to about 30 objects.*) *Calculations* • **Begin** to recognize that addition can be done in any order. • Understand the operation of addition, and subtraction as take away. • **Begin** to use +,- and = signs to record mental calculations in a number sentence, and to recognize the use of symbols such as △ and to○ stand for an unknown number. • Know by heart addition facts for all pairs of numbers with a total to at least 6 and the corresponding subtraction facts. *Problem Solving* • Choose and use appropriate number operations and mental strategies to solve problems. • Solve problems involving money and explain how the problem was solved. • Recognize coins of different values. • Find totals and change from 25cent. • Solve problems by sorting, classifying and organizing information in simple ways such as	3b 3b 2d 2aiii 5ei 5a 5bi 5dii 7a 12b 12ai 12b 8c	• Use and begin to read the vocabulary of comparing and ordering numbers, including ordinals to 100. Use the = sign to represent equality. Compare two given two-digit numbers, say, which is more or less, and give a number that lies between them. • Say a number that is 1 or 10 more or less than any given two-digit number. • Order whole numbers to at least 100, and position them on a number line and 100 square. *Calculations* • Extend understanding of the operations of addition and subtraction. • Develop the understanding that addition is combining sets to make a total and counting on steps along a number line. • Use the +, - and = signs to record mental additions and subtractions in a number sentence, and recognize the use of a symbol such as☐ or △ to stand for an unknown number. • Recognize that addition can be done in any order but not subtraction. • Understand that subtraction is the inverse of addition. • Know by heart all addition and subtraction facts for each number to at least 10. • Mental - Use knowledge that addition can be done in any order to do mental calculations	3b, 3c 2d 3c 5a 5bi 5a 5bi 5ei 5f 5diii 5ei

using objects and pictures; tallies; in a list or simple table. Discuss and explain results.		more efficiently e.g. putting larger number first and count on in ones or tens; finding a small difference by counting up from the smaller to the larger number • State the subtraction sum corresponding to a given addition sum, and vice versa. • Identify near doubles, using doubles already known, e.g. 8 + 9 = 8 + 8 + 1 *Problem Solving* • Choose and use appropriate operations and efficient calculation strategies (*e.g. mental, mental with jottings*) to solve problems. • Explain how a problem was solved orally and, where appropriate in writing. • Investigate a general statement about familiar numbers or shapes by finding examples to satisfy it (*e.g. I can make 6 by adding two numbers*) • Solve a given problem by sorting, classifying and organizing information in simple ways, such as: in a list or simple table; in a pictogram; in a block graph. Discuss and explain results.	5f 5di 7a 7bii 7d 8b
RATIONAL NUMBERS		**RATIONAL NUMBERS**	
• Divide rectangles and squares into thirds.	9	• Recognize, name and write commonly used fractions (in words) • Compare fractions • Recognize that $^{2}/_{2,}\ ^{4}/_{4},\ ^{3}/_{3} = 1$ or one whole (*practical work*)	9 9 9

MEASUREMENT		MEASUREMENT	
• Understand and use the vocabulary related to time. • Order familiar events in time. • Know the days of the week and the seasons of the year. (*Caribbean*) • Read the time to the hour on analogue clocks.)	11ai 11aii 11aii 11bi	• Use and begin to read the vocabulary related to length, mass and capacity (***only metric***) • Suggest suitable instruments to measure length, mass and capacity. • Use and begin to use the vocabulary related to time. • Estimates time intervals. (*hours*) • Use units of time and know the relationships between them. (*second, minute, hour, day, week*) • Order the months of the year.	10a 10b 11ai 11c 11aii 10a
GEOMETRY		**GEOMETRY**	**GEOMETRY**
• Use everyday language to describe features of familiar 3-D and 2-D shapes, including cube, cuboid, (rectangular prism), sphere, cylinder, cone, triangle, square, rectangle. • **Begin** to relate solid shapes to pictures of them. • Make and describe models, patterns and pictures, using construction kits, everyday materials, Playdoh etc. • Identify and draw symmetrical shapes.	13a 13a 13a 13b	• Use the mathematical names for common 3-D and 2-D shapes including pyramid, cylinder, pentagon, hexagon, and octagon. … • Sort shapes and describe some of their features, such as the number of sides and corners, symmetry (2-D shapes), or the shapes of faces and number of faces, edges and corners (3-D shapes).	13a 13a

Year 3 – Group 3		Year 4 – Group 4	
TERM 2		**TERM 2**	
Number and Numeration (*Consolidate work from Term One***)**	**#Target Behaviour/s**	**Number and Numeration (***Consolidate work from Term One***)**	**#Target Behaviour/s**
• Count in steps of three or more from zero to thirty. • **Begin** to count in ones to 50. And back. • **Begin** to partition larger numbers (>20) into multiples of tens and ones (TO). *Calculations* • Understand the operation of subtraction as difference. • Add or subtract a single digit to or from a single digit, without crossing 10. (*Continue from Term One*) • Add and subtract a single digit to or from a 'teens' number without crossing 20 using all	2bvi 2biii 3a 5f 5di 5di	• Count reliably up to 100 objects by grouping them in twos • Count on in twos from and back to zero from any small number, and recognize odd and even numbers to at least 30. • Count on in steps of 3 & 4 to at least 30, from and back to zero, then from and back to any given number. • Use and begin to read the vocabulary of estimation and approximation; give a sensible estimate of at least 50 objects. • Round numbers less than 100 to the nearest 10.	2bvi 2bvi 2bvi 4a 4b 5b

strategies taught previously. • Add 9 to a single digit by adding 10 and subtracting 1. • Know by heart all pairs of numbers with a total of 10 and the corresponding subtraction facts. • Know by heart addition doubles of all numbers to 5 + 5. • **Begin** to know by heart doubles from 6 + 6 to 10 + 10. • Use knowledge that addition can be done in any order to do mental calculations more efficiently. • Understand that more than two numbers can be added together. • Add mentally 3 small numbers within a range of 1 to about 12. • Identify near doubles, using doubles already known. (*e.g. 4 + 5*). • Use patterns of similar calculations when doing mental calculations. • Use known number facts and place value to add or subtract a pair of numbers mentally within the range 0 to at least 20. (*e.g. adding 10 to a single digit number and subtracting 10 from a 'teens' number*) *Problem Solving* • Work out how to pay an exact sum using smaller coins than 25 cent. • Investigate a general statement about familiar numbers or shapes by finding examples to	5di 5dii 5dii 5dii 5ei 5eii 5dii 5dii 5di 5di 7bii 7d	• **Begin** to add two two-digit with the help of apparatus (*hundred square*) (totals up to 100). • Use patterns of similar calculations • Use and **begin** to read related vocabulary for multiplication and division. *Calculations* • Understand that more than two numbers can be added. • **Begin** to add three single-digit numbers mentally (totals up to about 20). Know by heart all pairs of numbers with a total of 20 (e.g. 13 + 7, 6 + 14). (*discover and drill*) • Add three small numbers by putting the largest number first and/or find a pair totally 10. • Add/subtract 9 or 11: add/subtract 10 and adjust by 1. (*discover and drill*) • Understand the operation of multiplication as repeated addition or as describing an array, and **begin** to understand division as grouping (repeated subtraction) or sharing. • Know by heart multiplication facts for the 2, 5 and 10 times tables; doubles of all numbers to 10 and the corresponding halves.(*discover and drill*) *Problem Solving* • Solve mathematical problems or puzzles, recognize simple patterns and relationships, generalize and predict. Suggest extensions by asking 'What if…?' or 'What could I try next?'	5di 6a 5eii 5di 5di 5di 6b 6e 7c

satisfy it. • Use mental strategies to solve simple mathematical problems set in 'real life', money or measurement contexts, using counting, addition, subtraction, doubling and halving, explaining methods and reasoning orally.	7a	• Use mental addition and subtraction to solve simple word problems involving numbers in 'real life', money or measures, using one or two steps. Explain how the problem was solved. • Recognize all coins and begin to use Fls., c $.c notation for money (e.g. know that Fls4,65 indicates 4 guilders and 65cent) • Find totals, give change, and work out which coins to pay.	7bi 12ai 12b
RATIONAL NUMBERS		**RATIONAL NUMBERS**	
		• **Begin** to recognize that two halves or four quarters make one whole and that two quarters and one half are equivalent.	9
MEASUREMENT		**MEASUREMENT**	
• Read the time to the hour and half hour on analogue clocks. • Understand and use the vocabulary related to length, mass and capacity. • Compare two lengths, masses or capacities by direct comparison; extend to more than two. • Compare lengths, masses or capacities by measuring using non-standard units. • Suggest suitable uniform non-standard units to estimate, then measure a length, mass or capacity, recording estimates and measurements as 'about 3 beakers full' or 'as heavy as 20 cubes'. (*practical work*) • Solve problems about time.	11bi 10a 10b 10b 10c 11d	• Estimate, measure and compare lengths, masses and capacities, using standard units (m, cm, kg, litre); suggest suitable units and equipment for such measurements. • Read the time to the hour, half hour on an analogue clock and a 12-hour digital clock, and understand the notation 7:30. • Calculate time intervals. (*hour, half hour*) • Read the time to quarter-hour on an analogue clock and a 12-hour digital clock, and understand the notation 6:15, 9:45.	10b 11bi 11c 11bi, 11bii, 11biii
GEOMETRY		**GEOMETRY**	

• Use everyday language to describe 2 –D shapes referring to properties such as number of corners, or the number and type of sides. • Use everyday language to describe properties of 3-D shapes referring to shapes of flat faces, the number of faces or corners, or the number and type of sides. • Fold shapes in half and then make them into symmetrical patterns. (*practical work*)	13a 13a 13c	• Make and describe shapes, pictures and patterns using, for example, solid shapes, templates, geo boards and elastic bands, squared paper… relate solid shapes to pictures of them. • **Begin** to recognize line symmetry. • Recognize whole, half and quarter turns, to the left or right, clockwise or anti-clockwise. (*link to Phys. Ed.*)	13b 13c 13d

Year 3 – Group 3		**Year 4 – Group 4**	
TERM 3		**TERM 3**	
Number and Numeration (*Consolidate work from Term Two***)**	**#Target Behaviour/s**	**Number and Numeration (***Consolidate work from Term Two***)**	**#Target Behaviour/s**
Calculations • Begin to add a single-digit to a 'teens' number, crossing 20. • Know by heart addition doubles from 6 + 6 to 10 + 10. • Understand the operation of subtraction as 'how many more to make' and use related vocabulary. • Begin to add a 'teens' number to a 'teens number crossing 20.	5di 5dii 5bi 5dii	• Count in hundreds from and back to zero (up to 500) *Calculations* • Partition into '5 and a bit' when adding 6, 7, 8 or 9, then recombine (e.g. 16 + 8 = 15 + 1 + 5 + 3 = 20 + 4 = 24). (*practice*) • Use known number facts and place value to add/subtract mentally. • Bridge through 10 or 20 and adjust. • **Begin** to know multiplication facts for the 3	2bv 5di 5di 5di 6e

Problem Solving • Solve simple mathematical problems or puzzles; recognize and predict from simple patterns and relationships. Suggest extensions by asking "What if…?" or "What could I try next?" • Choose and use appropriate number operations and mental strategies to solve problems, including problems involving 'real life' money or measures. *Use fact families to consolidate calculation.	7c 7a	and 4 times-table. (*discover and drill*) • Derive quickly doubles of all numbers to at least 15 (e.g. 11 + 11 or 11 x 2); doubles of multiples of 5 to 50 (e.g. 20 x 2 or 35 x 2) • Use known number facts and place value to carry our mentally simple multiplications and divisions. • Recognizes that division is the inverse of multiplication. • Begins to use the ÷ sign to record models of division. • Check results of addition by repeat addition in a different order. *(drill and practice*) • Partition additions into tens and ones, then recombine. (*with regrouping*) • Derive quickly halves of multiples of 10 to 100 (e.g. half of 70). • Check with an equivalent calculation.	6e 6e 6h 6f 5ei 5di 6e 6e
MEASUREMENT		**MEASUREMENT**	
• Suggest suitable standard units and measuring equipment to estimate, then measure, a length, mass or capacity, recording estimates and measurements. (***Only metric measures***)	10b		
GEOMETRY		**GEOMETRY**	
• Use one or more shapes to make, describe and continue repeating patterns. *Spatial Sense* • Use everyday language to describe position, direction and movement.	13b 13d	*Spatial Sense* • Use mathematical vocabulary to describe position, direction and movement; e.g. describe, place, tick, draw or visualize objects in given positions.	13d

• Make whole and half turns.	13d	• Know that a right angle is a measure of a quarter turn, and recognize right angles in squares and rectangles. • Give instructions for moving along a route in straight lines and round right-angled corners: e.g. to pass through a simple maze.	13d 13d