This tracking sheet can be used as it is or edited as required. Use it to make plans and programs of work for individual pupils or groups, as well as to track and record progress.

THE DYSCALCULIA TOOLKIT – SECTION 1 Tracking sheet

EARLY NUMBER WORK WITH NUMBERS UP TO 10

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEACHING  POINT / TOPIC | ACTIVITY OR GAME | Dot patterns  Cuisenaire  Abstract | | | DATE & COMMENT |
| Visual patterns  for numbers | Make dot patterns for numbers, concretely | √ |  |  |  |
| Make transparent dot pattern cards | √ **/** |  |  |  |
| Make 5 Game, using transparent cards | √ |  |  |  |
| Explore smaller numbers inside larger numbers | √ |  |  |  |
| Change one dot pattern into another | √ |  |  |  |
| Use Cuisenaire rods to learn all components to 10 | √ |  |  |  |
| Story of a number | √ |  |  |  |
| Key components  up to 10:  Doubles &  near doubles  up to 5 + 5 | Make dot patterns for the numbers 1 to 10 | √ |  |  |  |
| Focus on key component facts | √ |  |  |  |
| Key Components Guessing Game | √ |  |  |  |
| Regroup: Apply logic to find new component facts | √ |  | √ |  |
| Key Facts Triad Game |  |  | √ |  |
| Post-It Note Subtraction Game | √ |  | √ |  |
| Use dot patterns to explore odd and even | √ |  |  |  |
| Explore and learn the doubles up to 5 + 5 | √ |  | √ |  |
| Odd and even  numbers up to 10 | Use dot patterns to explore odd and even | √ |  |  |  |
| Explore with Cuisenaire rods and with money | √ |  | √ |  |
| Odd and Even Collectors Game |  |  | √ |  |
| Components  . . . up to 6  Components  . . . up to 10 | Make 5 Game | √ |  |  |  |
| Collect 5s Game | √ |  |  |  |
| Explore smaller numbers inside larger numbers | √ |  |  |  |
| Numbers Inside Game | √ |  |  |  |
| Change one dot pattern into another | √ |  |  |  |
| Clear the Deck Game |  |  | √ |  |
| Sort and re-sort a set of dominoes | √ |  |  |  |
| Regroup: Apply logic to find new component facts | √ | √ | √ |  |
| Use Cuisenaire rods to learn all components to 10 |  | √ |  |  |
| Story of a number |  | √ |  |  |
| Race to Tell a Story Game |  | √ |  |  |
| Find complements of 10 with Cuisenaire rods |  | √ |  |  |
| Use money for component work |  | √ | √ |  |
| Adding up to 12 | Shut the Box / Cover the Number Game |  |  | √ |  |
| Complements  to 10 | Make a bead string | √ |  |  |  |
| Learn complements of 10 on bead string | √ |  |  |  |
| How Many Beads? Game | √ |  |  |  |
| Find complements of 10 with Cuisenaire rods |  | √ |  |  |
| Complements Number Search |  |  | √ |  |
| Complements Ping-Pong Game |  |  | √ |  |
| Ten in a Bed Game |  |  | √ |  |
| Domino 10s Game | √ |  |  |  |

THE DYSCALCULIA TOOLKIT – SECTION 1 Tracking sheet

EARLY NUMBER WORK WITH NUMBERS UP TO 10 (cont.)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEACHING POINT / TOPIC | ACTIVITY OR GAME | Dot patterns  Cuisenaire  Abstract | | | DATE & COMMENT |
| Add / Subtract  1 or 2 | Change dot patterns by adding or subtracting | √ |  |  |  |
| Focus on plus/minus 1 and plus/minus 2 | √ | √ | √ |  |
| Who Has Most Equations? Game |  |  | √ |  |
| Add / Subtract  small amounts | Draw Your Race on a Number Line |  |  | √ |  |
| Collect 5s Game | √ |  |  |  |
| Numbers Inside Game | √ |  |  |  |
| Teach complementary addition | √ |  | √ |  |
| Complementary addition on a number line |  |  | √ |  |
| Draw and record equations informally (triads) |  |  | √ |  |
| Shut the Box / Cover the Number Game |  |  | √ |  |
| Post-It Note Subtraction Game |  |  | √ |  |
| Make up word problems |  |  | √ |  |
| Missing  numbers | Component work with Cuisenaire rods |  | √ |  |  |
| Compare the difference and equalise | √ |  | √ |  |
| Hidden quantity subtraction | √ |  |  |  |
| Sort and re-sort a set of dominoes | √ |  |  |  |
| Connect subtraction to addition | √ |  |  |  |
| Regroup: Apply logic to find new component facts | √ |  | √ |  |
| Make up word problems about missing numbers |  |  | √ |  |
| Make and read equations with Cuisenaire rods |  | √ |  |  |
| Draw and record equations in writing |  |  | √ |  |
| Shut the Box / Cover the Number Game |  |  | √ |  |
| Compare the difference and equalise | √ |  | √ |  |
| Post-It Note Subtraction Game |  |  | √ |  |
| Hidden quantity subtraction | √ | √ |  |  |
| Complementary  addition <10 | Teach complementary addition | √ |  | √ |  |
| Complementary addition on a number line |  |  | √ |  |
| Mental  arithmetic  strategies | Recap previous components and complements work | √ | √ | √ |  |
| Focus on plus/minus 1 and plus/minus 2 |  |  | √ |  |
| Identify best strategy for different situations |  |  | √ |  |
| Collect 5s Game | √ |  |  |  |
| Sort and re-sort a set of dominoes | √ |  |  |  |
| Regroup: Apply logic to find new component facts | √ |  | √ |  |
| Use Cuisenaire rods to learn all components to 10 |  | √ |  |  |
| How Many Beads? Game | √ |  |  |  |
| Find complements of 10 with Cuisenaire rods |  | √ |  |  |
| Estimate and measure using Cuisenaire rods |  | √ |  |  |
| Find near-complements and near-doubles |  | √ | √ |  |
| ENL (empty  number lines) | Draw Your Race on a Number Line |  |  | √ |  |
| Complementary addition on a number line |  |  | √ |  |

THE DYSCALCULIA TOOLKIT – SECTION 2 Tracking sheet

BASIC CALCULATION WITH NUMBERS ABOVE 10

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TEACHING  POINT / TOPIC | ACTIVITY OR GAME | Cuisenaire  Abstract | | DATE & COMMENT |
| Focus on the  ‘teen’ numbers | Connect the numbers 10 to 20 with the numbers below 10 | √ |  |  |
| Focus on the ‘teen’ numbers | √ |  |  |
| Explore the numbers between 10 and 20 with Cuisenaire rods | √ |  |  |
| Make a 20-step staircase | √ |  |  |
| Locate 2-digit numbers |  | √ |  |
| Subtraction Equations Game |  | √ |  |
| Complements to multiples of 10 | Complements to 20 | √ | √ |  |
| Complements to larger multiples of ten | √ | √ |  |
| Complements on a number line |  | √ |  |
| Bridging | Five and What’s Left Game | √ |  |  |
| Introduce bridging with Cuisenaire rods | √ |  |  |
| Bridge through 10 on a number line |  | √ |  |
| Practise bridging |  | √ |  |
| Frame an Addition Game | √ | √ |  |
| Bridge through multiples of 10 |  | √ |  |
| Race Along a Number Line and Bridge |  | √ |  |
| Race to the End of the Number Line |  | √ |  |
| Complementary addition for  2-digit numbers | Complementary addition for subtraction |  | √ |  |
| Frame a Subtraction Game | √ | √ |  |
| Subtracting round numbers | √ | √ |  |
| Harder complementary addition |  | √ |  |
| Partitioning  2-digit numbers | A flexible approach to partitioning | √ | √ |  |
| Explore partitioning methods |  | √ |  |
| *More activities in Section 3* |  | |  |
| Decomposition  in subtraction | A flexible approach to partitioning | √ | √ |  |
| Avoid decomposition |  | √ |  |
| *More activities in Section 3* |  |  |  |
| Complements  to 100 | Complements to 100 | √ | √ |  |
| Keep the Change! Game |  | √ |  |
| *More activities and a game in Section 3* |  | |  |
| Doubling and  halving | Learn the doubles up to 10 + 10 | √ |  |  |
| Practise and extend the doubles facts | √ | √ |  |
| Double Take Solitaire Game |  | √ |  |
| Halving is the opposite of doubling |  | √ |  |
| Find half of round numbers | √ |  |  |
| Function machines |  | √ |  |
| *More activities in Section 3* |  | |  |
| Focus on  strategies | The Basic 8 strategies |  | √ |  |
| Identify best strategy for different situations |  | √ |  |

THE DYSCALCULIA TOOLKIT – SECTION 2 Tracking sheet

BASIC CALCULATION WITH NUMBERS ABOVE 10 (cont.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TEACHING  POINT / TOPIC | ACTIVITY OR GAME | Cuisenaire  Abstract | | DATE & COMMENT |
| Derive new  number facts  by reasoning | The Regroup Game |  | √ |  |
| Polka Dots Game |  | √ |  |
| It All Adds Up Game |  | √ |  |
| Connect the numbers 10 to 20 with the numbers below 10 | √ |  |  |
| Focus on the ‘teen’ numbers | √ |  |  |
| Explore the numbers between 10 and 20 with Cuisenaire rods | √ |  |  |
| A flexible approach to partitioning | √ | √ |  |
| Explore partitioning methods |  | √ |  |
| Avoid decomposition in subtraction |  | √ |  |
| 9 is almost 10 | √ |  |  |
| Find near-complements and near-doubles | √ | √ |  |
| Identify best strategy for different situations |  | √ |  |
| The Basic 8 strategies |  | √ |  |
| ENL (empty  number lines) | Locate 2-digit numbers in context |  | √ |  |
| Complements on a number line |  | √ |  |
| Bridge through 10 on a number line |  | √ |  |
| Practise bridging and reinforce commutativity |  | √ |  |
| Frame an Addition Game | √ | √ |  |
| Bridge through multiples of 10 |  | √ |  |
| Race Along the Number Line and Bridge |  | √ |  |
| Race to the End of the Number Line |  | √ |  |
| Complementary addition for subtraction |  | √ |  |
| Frame a Subtraction Game | √ | √ |  |
| Subtracting round numbers | √ | √ |  |
| Harder complementary addition |  | √ |  |
| Complements to 100 | √ | √ |  |
| Column  arithmetic | Teach an expanded written method |  | √ |  |
| *More activities in Section 3* |  | |  |

THE DYSCALCULIA TOOLKIT – SECTION 3 Tracking sheet

PLACE VALUE

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TEACHING  POINT / TOPIC | ACTIVITY OR GAME | Cuisenaire  Abstract | | DATE & COMMENT |
| Concrete counting | Concrete counting on place value mats | √ |  |  |
| Place value:  ‘teen’ numbers | Make a 20-step staircase | √ |  |  |
| Cover 20 Game | √ |  |  |
| Place value:  2-digit numbers | Exchange unit into tens | √ |  |  |
| Magic 10s Game | √ |  |  |
| Race to Cover 100 | √ |  |  |
| Four Throws Game |  | √ |  |
| Win Counters on a 100 Square |  | √ |  |
| Race Through a 100 Square |  | √ |  |
| Steer the Number Game | √ |  |  |
| Transform a 2-digit number in two steps |  | √ |  |
| 2-Digit Sequences Game |  | √ |  |
| Partition numbers into tens and units | √ |  |  |
| Split off the ‘teen’ numbers |  | √ |  |
| Rounding | Round up or down |  | √ |  |
| The Six-Card Rounding Game |  | √ |  |
| Rounding Races |  | √ |  |
| Place value: 2- or  3-digit numbers | Make and read Cuisenaire rod or base-10 | √ |  |  |
| Dice and Spinner games |  | √ |  |
| Practise subtraction with decomposition | √ |  |  |
| Spot the Decomposition Game |  | √ |  |
| Practise adding / subtracting 10 and 100 |  | √ |  |
| Jump 10 Game |  | √ |  |
| Locate any number on a number line |  | √ |  |
| The Rounding Challenge |  | √ |  |
| Teach x 10 and ÷ 10 as shift between columns |  | √ |  |
| Extend place value thinking to decimals |  | √ |  |
| Place value:  3-digit numbers | Build up large numbers, one column at a time |  | √ |  |
| What is the value of . . . | √ | √ |  |
| 3-Digit Sequences (Focus on Tens) Game |  | √ |  |
| Place value:  decimal numbers | Teach x 10 and ÷ 10 as shift between columns |  | √ |  |
| Extend place value thinking to decimals |  | √ |  |
| Connect decimal notation to money |  | √ |  |
| Rounding Races |  | √ |  |
| Place value:  more than  3-digits | Use a spike abacus |  | √ |  |
| Teach the three-fold repeating pattern |  | √ |  |
| Explore place value as a shorthand |  | √ |  |
| Read and write multi-digit numbers |  | √ |  |
| Place Value Boxes Game |  | √ |  |
| Calculator Skittles Game |  | √ |  |
| Teach x 10 and ÷ 10 as shift between columns |  | √ |  |
| Extend place value thinking to decimals |  | √ |  |
| Connect decimal notation to money |  | √ |  |

THE DYSCALCULIA TOOLKIT – SECTION 4 Tracking sheet

TIMES TABLES, MULTIPLICATION AND DIVISION

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TEACHING  POINT / TOPIC | ACTIVITY OR GAME | Cuisenaire  Abstract | | DATE & COMMENT |
| Groups & arrays | Build small numbers out of equal-sized groups | √ |  |  |
| Multiplication as  repeated addition | Connect step-counting with times tables | √ | √ |  |
| ENL (empty  number lines) | Mental step-counting from given tables facts |  | √ |  |
| Make times tables patterns on number lines |  | √ |  |
| Patterns created  by tables facts | Make times tables patterns on a 100-square |  | √ |  |
| Make times tables patterns on number lines |  | √ |  |
| Key fact: Double means 'multiply by 2' | √ |  |  |
| Step-counting  for  multiplication  facts | Build small numbers out of equal-sized groups | √ |  |  |
| Connect step-counting with times tables | √ | √ |  |
| Mental step-counting from given tables facts |  | √ |  |
| Area model of  multiplication  & division | Use Cuisenaire rods | √ |  |  |
| Cuisenaire rods for multiplication and division | √ |  |  |
| Key facts: x 5 is half of x 10 | √ | √ |  |
| x 9 is almost x 10 | √ |  |  |
| Diagrammatic recording |  | √ |  |
| Areas on a Grid Game | √ | √ |  |
| Change the shape of the rectangle |  | √ |  |
| Use rectangle sketches to derive new facts |  | √ |  |
| Use rectangle sketches to support short division |  | √ |  |
| Connect  multiplication  with division | Connect division to multiplication |  | √ |  |
| Illustrate simple word problems |  | √ |  |
| Key facts: x 5 is half of x 10 | √ | √ |  |
| How many 10s? So, twice as many 5s | √ | √ |  |
| Mouse Tables games |  | √ |  |
| Games using self-correcting cards |  | √ |  |
| Construct a multiplication grid | √ | √ |  |
| Complete a partially filled multiplication grid |  | √ |  |
| Multiples from the 1–6 Times Tables Game |  | √ |  |
| Factors games |  | √ |  |
| Compare division sketches to multiplication sketches |  | √ |  |
| Derive new  tables facts  by reasoning | Use Cuisenaire rods | √ |  |  |
| Key tables facts: double is x 2; x 5 is half of x 10 | √ | √ |  |
| Find all the steps of any times table |  | √ |  |
| Practise all the steps of any times table |  | √ |  |
| Don’t Walk If You Can Take the Bus Game | √ | √ |  |
| Products in a Row Game |  | √ |  |
| Harder mixed tables practice |  | √ |  |
| Find division facts by reasoning from key facts |  | √ |  |
| Change the shape of the rectangle |  | √ |  |
| Use rectangle sketches to derive new facts |  | √ |  |
| Short division | Use rods to explore short division | √ |  |  |
| Teach an expanded written notation |  | √ |  |
| Use rectangle sketches to support short division |  | √ |  |
| Divisibility rules | Teach the divisibility rules |  | √ |  |
| Divisibility Rules Game |  | √ |  |