

The on-line **Wee Red Box** flash cards replicate the benefits of the actual plastic versions that are available in the website store for Curriculum for Excellence levels 1, 2 and 3 (£135 / box).

Both the on-line and actual versions of the **Wee Red Box** use the old fashioned but highly effective flash card techniques that can promote good 'working memory' and better 'processing speed'.

Being mentally fluent = better at numeracy = better at maths.

Accessing a set of on-line Wee Red Box flash cards requires 5 credits (ie from as little as 42p / hour) and they offer the opportunity to become fluent at a particular numeracy skill. Initially the aim is to get 20/20, then, once that is established, doing the flash cards faster.

Overview of Wee Red Box flash cards

(each with pass marks of 20 / 20, and gaining 'Well Done' awards at level 4 is excellent enough at numeracy)

Curriculum for Excellence Level 1 (and mainly suitable for P2, P3, P4)

'starting' the level (and mainly suitable for P1, P2, P3)

+ within 10

give practice on adding within 10 eg 4+3, 2+6, 3+4 or 6+4 etc

(downloadable videos available '+ within 10, using a number line' and '+ within 10, using cubes')

- within 10

give practice on subtracting within 10 eg 6-3, 10-4, 10-6 or 8-5 etc

(downloadable videos available '- within 10, using a number line' and '- within 10, using cubes')

+ or - within 10

give practice on adding and subtracting within 10 eg 4+3, 7-3, 2+6, or 8-6 etc

(downloadable videos available '+ or - within 10, using a number line' and '+ or - within 10, using cubes')

'towards' the level (and mainly suitable for P2, P3, P4)

+ within 20

give practice on adding within 20 eg $6+7$, $8+8$, $7+6$ or $9+4$ etc
(downloadable video available '+ within 20')

- within 20

give practice on subtracting within 20 eg $13-6$, $16-8$, $13-7$ or $14-9$ etc
(downloadable video available '- within 20')

+ within 100

give practice on adding within 100 eg $48+2$, $76+6$, $29+10$ or $38+30$ etc
(downloadable videos available '+ within 100' and '+ within 100, using 100+')

- within 100

give practice on subtracting within 100 eg $50-2$, $71-4$, $66-10$ or $83-20$ etc
(downloadable videos available '- within 100', '- within 100, using 100+', '- from 100' and '- from £1')

x or ÷ by 2

give practice on multiplying and dividing with the 2 times table eg 6×2 , $12 \div 2$, 9×2 or $18 \div 2$ etc
(downloadable videos available 'x by 2', '÷ by 2' and 'x or ÷ by 2')

x or ÷ by 5

give practice on multiplying and dividing with the 5 times table eg 6×5 , $30 \div 5$, 9×5 or $45 \div 5$ etc
(downloadable videos available 'x by 5', '÷ by 5' and 'x or ÷ by 5')

x or ÷ by 10

give practice on multiplying and dividing with the 10 times table eg 6×10 , $60 \div 10$, 9×10 or $90 \div 10$ etc
(downloadable videos available 'x by 10', '÷ by 10' and 'x or ÷ by 10')

'at' the level (and mainly suitable for P3, P4, P5)

+ or - within 20

give practice on adding and subtracting within 20 eg $9+8$, $17-9$, $8+7$ or $15-8$ etc
(downloadable video available '+ or - within 20, using 100+')

+ or - within 100

give practice on adding and subtracting within 100 eg $39+8$, $57-9$, $28+7$ or $65-8$ etc
(downloadable videos available '+ or - within 100, using 100+' and '+ and - families')

+ within 1000

give practice on adding within 1000 eg $435+5$, $264+10$, $437+100$ etc
(downloadable videos available '+ 1, 10, 100 or 1000' and '+ within 1000')

- within 1000

give practice on subtracting within 1000 eg $419-3$, $175-10$, $318-100$ etc
(downloadable videos available '- 1, 10, 100 or 1000', '+ within 1000', '- from 1000' and '- from £10')

x or ÷ by 3

give practice on multiplying and dividing with the 3 times table eg 6×3 , $18 \div 3$, 9×3 or $27 \div 3$ etc

(downloadable videos available 'x by 3', '÷ by 3' and 'x or ÷ by 3')

x or ÷ by 4

give practice on multiplying and dividing with the 4 times table eg 6×4 , $24 \div 4$, 9×4 or $36 \div 4$ etc

(downloadable videos available 'x by 4', '÷ by 4' and 'x or ÷ by 4')

x or ÷ by 2, 3, 4, 5 or 10

give practice on multiplying and dividing with the 2, 3, 4, 5 or 10 times tables eg 6×2 , $12 \div 2$, 9×3 , $27 \div 3$, 5×4 , $20 \div 4$, 3×5 , $15 \div 5$, 7×10 or $70 \div 10$ etc

(downloadable videos available 'fast multiplying' and 'x and ÷ families')

1/2 or 1/4

give practice on finding $\frac{1}{2}$'s and $\frac{1}{4}$'s within the 2 and 4 times tables eg $\frac{1}{2}$ of 12, $\frac{1}{2}$ of 16, $\frac{1}{4}$ of 28, $\frac{1}{4}$ of 12 etc

(downloadable videos available 'find 1/2' and 'find 1/4')

patterns

give practice on giving the next number in a pattern eg 62, 60, 58, .. or 97, 98, 99, .. or, 120, 125, 130, etc

assessment

give practice on all the key mental agility skills for level 1, including add and subtract, multiply and divide, fractions and patterns

Curriculum for Excellence Level 2 (and mainly suitable for P5, P6, P7)

'starting' the level (and mainly suitable for P4, P5, P6)

+ or –

give practice on adding and subtracting single digits or multiples of 10 to and from three digits eg $496+6$, $878+8$, $320-8$ or $455-50$ etc

(downloadable videos available '- within 10000' and '- from 10000')

x or ÷ by 6

give practice on multiplying and dividing with the 6 times table eg 6×6 , $36 \div 6$, 9×6 or $54 \div 6$ etc

(downloadable videos available 'x by 6', '÷ by 6' and 'x or ÷ by 6')

x or ÷ by 7

give practice on multiplying and dividing with the 7 times table eg 6×7 , $42 \div 7$, 9×7 or $63 \div 7$ etc

(downloadable videos available 'x by 7', '÷ by 7' and 'x or ÷ by 7')

'towards' the level (and mainly suitable for P5, P6, P7)

+ two digits

give practice on mentally adding a two digit number eg $44+19$, $235+25$ or $66+53$ etc

- two digits

give practice on mentally subtracting a two digit number eg $84-19$, $250-25$ or $120-23$ etc

x or ÷ by 8

give practice on multiplying and dividing with the 8 times table eg 6×8 , $48 \div 8$, 9×8 or $72 \div 8$ etc

(downloadable videos available 'x by 8', '÷ by 8' and 'x or ÷ by 8')

x or ÷ by 9

give practice on multiplying and dividing with the 9 times table eg 6×9 , $54 \div 9$, 9×9 or $81 \div 9$ etc

(downloadable videos available 'x by 9', '÷ by 9' and 'x or ÷ by 9')

x or ÷ with all the tables

give practice on multiplying and dividing with the 2, 3, 4, 5, 6, 7, 8, 9 or 10 times tables eg 6×7 , $42 \div 7$, 9×8 , $72 \div 8$, 4×9 or $36 \div 9$ etc

(downloadable videos available 'x by two digits', 'x three or more digits', 'x decimals', 'mentally x', 'x or ÷ whole numbers by 10 or 100', 'x and ÷ families' and 'fast multiplying')

÷ with remainders

give practice on dividing that result in remainders (a key skill for division) eg $44 \div 7$, $50 \div 8$ or $35 \div 4$ etc

(downloadable videos available '÷ with remainders', '÷ two digits', '÷ three or more digits', '÷ decimals' and '÷ money')

fractions

give practice on finding more complex $\frac{1}{2}$'s and $\frac{1}{4}$'s as well as $\frac{1}{3}$'s, $\frac{1}{5}$'s and $\frac{1}{10}$'s eg $\frac{1}{3}$ of 18, $\frac{1}{5}$ of 40, $\frac{1}{10}$ of 70, $\frac{1}{2}$ of 150, $\frac{1}{4}$ of 240 etc

(downloadable videos available 'find 1/2', 'find 1/4', 'find 1/3, 1/5, 1/10', 'find 1/3' and 'find 1/5')

'at' the level (and mainly suitable for P6, P7, S1)

+ or –

give practice on adding or subtracting simple decimals and more complex versions than for 'working towards' eg $5.6+4$, $7.2-3$, $111-33$, $785+39$ etc

(downloadable videos available '+ decimals', '- decimals', '+ and – families' and '+ or – decimals')

order of calculation

give practice on using the priority that \times and \div has over $+$ and $-$ eg $2+4\times 3$ or $20-12\div 2$ etc

(downloadable video available 'order of calculation')

+ negative numbers

give practice on adding a negative number to either a positive or a negative number eg $4 + (-6)$, or $-5 + (-4)$, or $5 + (-9)$ etc

(downloadable video available '+ negative numbers')

\times or \div by 10 or 100

give practice on multiplying or dividing whole number and decimals by 10 or 100 eg $413\div 10$, 2.55×10 , $456\div 100$ or 1.6×100 etc

(downloadable video available 'x or \div decimals by 10 or 100')

\times two digits

give practice on multiplying a two digit number by a single digit eg 25×7 , 15×8 or 44×3 etc

\div two or three digits

give practice on dividing two or three digits by a single digit eg $220\div 4$, $560\div 8$ or $135\div 9$ etc

(downloadable videos available ' \div to get decimal answers' and 'mentally \div ')

fractions

give practice on finding fractions with numerators > 1 eg $\frac{2}{3}$ of 18, $\frac{3}{4}$ of 28, $\frac{3}{5}$ of 40 or $\frac{7}{10}$ of 60 etc

(downloadable videos available 'compare fractions', 'find $\frac{2}{3}$, $\frac{3}{4}$, ...', 'find $\frac{2}{5}$.. $\frac{3}{10}$...' and 'equivalent fractions and %')

percentages

give practice on finding 50%, 25%, 10%, 33% and 20% of quantities eg 50% of 1.4L, 25% of 28kg, 10% of 16m, 33% of 12L or 20% of 40L etc

(downloadable videos available 'find 50%', 'find 25%', 'find 10%', 'find 33%', 'find 20%', 'find more complex 50%', 'find more complex 25%' and 'find more complex 10%')

patterns

give practice on giving the next number in a pattern eg 620, 605, 590, or 9.7, 9.8, 9.9,, or 1280, 1287, 1294, etc

(downloadable video available 'triplet patterns')

assessment

give practice on all the key mental agility skills for level 2, including add and subtract, multiply and divide, fractions, percentages and patterns

Curriculum for Excellence Level 3 (and mainly suitable for P7, S1, S2)

+ decimals

give practice on mentally adding decimals such as $0.2+1.15$ or $3.1+1.22$ or $2.35+0.56$ etc

- decimals

give practice on mentally subtracting decimals such as $5-0.3$ or $2.75-0.3$ or $2.65-0.24$ etc

+ or - integers

give practice on mentally adding or subtracting negative numbers such as $8+(-17)$ or $3-(-6)$ or $(-5)-(-3)$ etc

(downloadable video available '+ or - integers')

order of calculation

give practice on using the priority that \times and \div has over $+$ and $-$, and often involving brackets eg $9(5+4)$ or $(12+8)\div 2$ or $3(7-2)\div 5$ etc

(downloadable video available 'order of calculation')

+

give practice on mentally adding in a variety of contexts eg $2.4+0.15$ or $1257+35$ or $(-2)+(-6)$ etc

-

give practice on mentally subtracting in a variety of contexts eg $2.55-0.3$ or $2832-29$ or $8-(-6)$ etc

x decimals

give practice on mentally multiplying decimals eg 1.8×3 or 0.045×10 or 5.5×5 etc

\div decimals

give practice on mentally dividing decimals eg $4.2\div 6$ or $7.45\div 100$ or $2.5\div 5$ etc

(downloadable video available 'decimal answers with \div)

x or \div negative integers

give practice on mentally multiplying or dividing negative numbers eg $5\times(-6)$ or $(-4)\times(-3)$ or $45\div(-9)$ or $(-20)\div(-4)$ etc

(downloadable video available 'x or \div integers')

x

give practice on mentally multiplying in a variety of contexts eg 355×2 , $4\times(-7)$, 90×300 or 4.8×2 etc

(downloadable videos available 'long x mentally', 'long x' and 'fast multiplying')

\div

give practice on mentally dividing in a variety of contexts eg $3000\div 60$, $42\div(-7)$, $600\div 8$ or $3.2\div 4$ etc

(downloadable videos available 'long \div mentally' and 'long \div)

evaluate formulae

give practice on mentally finding the value of expressions when the values of each letter in the expression are known eg if $A=5$ and $B=7$ find the value of expressions such as $4(A+B)$, $A-B$, $3AB$, $2A-B$, $2(A-B)$ etc
(downloadable video available 'evaluate formulae')

fractions 1

give practice on mentally finding fractions such as $1/20$ of 80, $1/25$ of 200, $1/2$ of 1.5 or $1/4$ of 960 etc
(downloadable video available 'find more complex fractions')

fractions 2

give practice on mentally finding more complex versions of fractions with numerators > 1 eg $3/8$ of 72, or $5/9$ of 54, or $3/4$ of 320, or $3/5$ of 3.5 etc
(downloadable video available 'find more complex fractions')

+ or – fractions

give practice on mentally adding and subtracting fractions such as $8 - 2\frac{1}{2}$ or $1 - \frac{1}{4}$ or $3/7 + 2/7$ or $9\frac{1}{2} + 1\frac{1}{2}$ etc
(downloadable videos available '+ fractions', '- fractions', 'x fractions' and 'convert fractions')

percentages

give practice on mentally finding 50%, 25%, 10%, 33% and 20% of more complex quantities than at level 2 and now 75%, 40%, 15% and 2.5% eg 50% of 1.3L or 40% of 60m or 75% of 36L or 15% of 40kg etc
(downloadable videos available 'find 67%', 'find 75%', 'find 40%, 60%, 80%', 'find 33%', 'find 20%', 'find 5% or 15%' and 'find 2½% or 7½%')

+ or - percentages

give practice on mentally adding or subtracting simple percentages to and from quantities eg $40m+10\%$ or $36L-25\%$ or $30m+20\%$ or $60L-10\%$ etc
(downloadable videos available '+%' and '-%')

powers and roots

give practice on mentally finding perfect squares (to 10) and square roots (from 100) and prepares the way for powers at level 4 eg 8^2 or $\sqrt{49}$ or $5 \times 5 \times 5$ or $2 \times 2 \times 2 \times 2$ etc
(downloadable video available 'squares and roots')

patterns

give practice on giving the next number in a pattern eg 2400, 2373, 2346, ... or 0.25, 0.5, 0.75, or 0.14, 0.22, 0.3, or 9, 16, 25, 36, ... etc
(downloadable video available 'triplet patterns')

assessments

give practice on all the key mental agility skills for level 3, including add and subtract, multiply and divide, fractions, powers, percentages and patterns

Curriculum for Excellence Level 4 (and mainly suitable for S2, S3)

+ or – decimals

give practice on mentally adding or subtracting decimals involving up to three decimal places eg $5.779+0.003$ or $7.555-0.4$ or $3-0.425$ etc

+, −, x, ÷ integers

give practice on mentally adding, subtracting, multiplying and dividing negative numbers (including order of calculation) such as $(-3)-(-4)+(-5)$ or, $(-3)-(-4)\times(-5)$ or, $(-6)\times(-8)\div 4$ or, $(-6)+(-8)\div 4$, or, $(-4)^3$ etc

+ or –

give practice on mentally adding or subtracting in a variety of contexts eg $5.28-0.9$ or $1624+79$ or $-4-(-6)-3$ or $10000-1925$ etc

x or ÷ whole numbers

give practice on mentally multiplying and dividing with whole numbers eg 220×6 or $21000\div 70$ or 36×7 or $9000\div 6$ etc

scientific notation

give practice on converting numbers expressed as standard form into ordinary numbers, and, simple cases of multiplying and dividing standard form numbers mentally eg 3.5×10^7 or, 7.2×10^{-4} or, $(2.5\times 10^3)\times(2\times 10^4)$ or, $(6\times 10^8)\div(3\times 10^5)$ etc
(downloadable videos available 'x with scientific notation' and '÷ with scientific notation')

x decimals

give practice on multiplying decimals (more complex versions than at level 3) eg 0.6×70 or 1.8×20 or 0.99×8 etc
(downloadable video available 'long x (decimals)' and 'x decimals by multiples of 10')

÷ decimals

give practice on dividing decimals (more complex versions than at level 3) eg $86\div 20$ or $3.74\div 2$ or $9\div 6$ etc
(downloadable video available 'long ÷ (decimals), '÷ decimals by multiples of 10' and '÷ to get decimal answers'))

x or ÷

give practice on multiplying and dividing in a variety of contexts eg 0.99×6 or $7.35\div 7$ or 0.8×40 or $(-6)\times(-4)\div(-8)$ etc
(downloadable video available 'fast multiplying')

order of calculation

give practice on using the priority that x and ÷ has over + and −, now involving double brackets and negative numbers (and more complex versions than at level 3) eg $2((7+2)-5)$ or $6\times 4-5\times 5$ or $42\div(6+4)$ etc
(downloadable videos available 'order of calculation')

evaluate formulae 1

give practice on mentally finding the value of expressions when the values of each letter in the expression are known eg if $B=5$ and $H=3$ find the value of expressions such as $(BH)\div 2$ or $3BH$ or $B^2 + H^2$ or $(B+H)^2$ or H^3 etc

evaluate formulae 2

give practice on mentally finding the value of expressions when the values of each letter in the expression are known eg if $X=-2$, $Y=6$ and $Z=5$ find the value of expressions such as $(Y-Z)^3$ or $(Z-Y)^2$ or $X+YZ$ or $\frac{1}{2}(Y\div X)$ etc

fractions 1

give practice on mentally finding fractions (more complex versions than at level 3) such as $\frac{1}{2}$ of 5.7 or $\frac{1}{25}$ of 350 or $\frac{1}{3}$ of 1.14 or $\frac{1}{8}$ of 9.6 etc

fractions 2

give practice on mentally finding fractions (more complex versions than at level 3) with numerator > 1 such as $\frac{3}{5}$ of 90 or $\frac{11}{20}$ of 60 or $\frac{3}{4}$ of 5 or $\frac{5}{8}$ of 2.4 etc

+ or - fractions

give practice on mentally adding and subtracting fractions (more complex versions than at level 3) such as 1 and $\frac{6}{7}$ + 1 and $\frac{3}{7}$, or, $1-\frac{11}{15}$, or $\frac{4}{7}+\frac{4}{7}$ or $1\frac{1}{2} - \frac{3}{4}$ etc
(downloadable videos available '+ fractions' and '- fractions')

x or \div fractions

give practice on mentally multiplying and dividing fractions such as $\frac{4}{5} \times \frac{1}{7}$, or, $2\frac{1}{2} \div \frac{1}{2}$ or $2 \div \frac{3}{4}$ or $3 \times 1\frac{1}{2}$ etc
(downloadable videos available 'x fractions' and ' \div fractions')

percentages

give practice on mentally finding percentages of more complex quantities than at level 3 and now 7.5%, 60% and 80% eg 75% of 140L or 5% of 24m or 50% of 0.35L or 7.5% of 16m etc

+ or - percentages

give practice on mentally adding or subtracting (more complex versions than at level 3) percentages to and from quantities eg 35m-10% or 3.5L+20% or 16kg+75% or 1.6m-25% etc
(downloadable videos available '+%' and '-%')

powers and roots

give practice on mentally finding cubes and cube roots and more complex squares and square roots eg 17^2 or $\sqrt{400}$ or 7^3 or $\sqrt[3]{343}$ etc
(downloadable videos available 'cubes and cube roots' and 'powers and roots')

patterns

give practice on giving the next number in more complex patterns eg -22, -15, -8, -1, ... or 1, 8, 27, 64, or 40, 34.5, 29, or 6, 3, 1.5, etc

assessment

give practice on all the key mental agility skills for level 4, including add and subtract, multiply and divide, fractions, percentages and patterns
(20/20 in a reasonable time, all done mentally? Maybe excellent enough!)