

Year 3—Written calculation strategies

ADDITION

- Put each digit in a square.
- Use the correct columns.
- 2 digit or 3 digit numbers
- Use place value grid and dienes blocks to show understanding



Compact Column:

- Formal method with or without exchanging
- Strike through carry once included in answer.

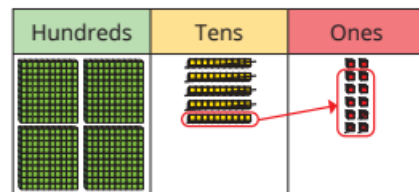
$$\begin{array}{r} 347 \\ + 242 \\ \hline 589 \end{array}$$

$$\begin{array}{r} 267 \\ + 85 \\ \hline 352 \\ \hline \end{array}$$



SUBTRACTION

- Put each digit in a square.
- Use the correct columns.
- Up to 3 digit numbers
- Use place value grid and dienes blocks to show understanding



$$452 - 43 = 409$$

Without exchanging:

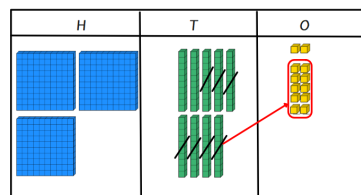
$$\begin{array}{r} 246 \\ - 125 \\ \hline 121 \end{array}$$



With exchanging:

$$\begin{array}{r} 392 \\ - 67 \\ \hline \end{array}$$

$$\begin{array}{r} 392 \\ - 67 \\ \hline 325 \end{array}$$

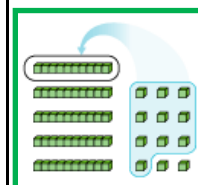


MULTIPLICATION

- Put each digit in a square.
- Use the correct columns.
- 2 digit by 1 digit numbers
- Use place value grid and dienes blocks to show understanding



$$32 \times 3 = 96$$



$$13 \times 4 = 52$$

Partitioning:

$$32 \times 3 = 39$$

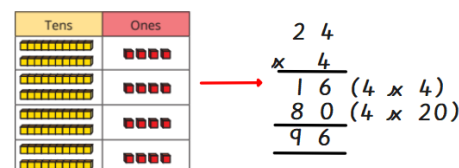
$$30 \times 3 = 90$$

$$2 \times 3 = 6$$

$$90 + 6 = 96$$

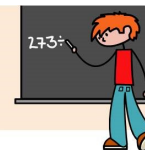


Expanded Method:



$$\begin{array}{r} 24 \\ \times 4 \\ \hline 16 \quad (4 \times 4) \\ 80 \quad (4 \times 20) \\ \hline 96 \end{array}$$

DIVISION



- Put each digit in a square.
- 2 digit by 1 digit numbers
- Use place value grid and dienes blocks to show understanding

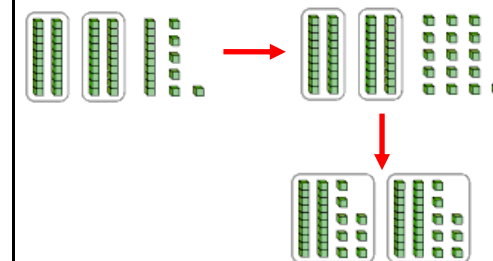
Informal without regrouping

$$37 \div 3 = 12 \text{ r}1$$



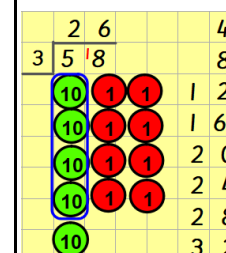
Informal with regrouping

$$56 \div 2 = 28$$



Formal written method

$$\begin{array}{r} 21 \\ 4 \overline{) 88} \end{array}$$



$$\begin{array}{r} 26 \\ 3 \overline{) 518} \end{array}$$