

Number and Place Value

Knowledge Organiser

Key Vocabulary

hundreds

tens

ones

zero

place value

greater than

less than

order

more

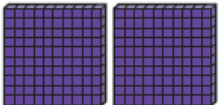
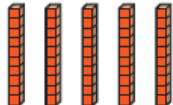

less

partition

digit

3-Digit Numbers

256

| | | |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| two hundred | fifty | six |
|  |  |  |
| 200 | 50 | 6 |

Counting in 4s and 8s

| | | | | | | | | | | |
|---|---|---|----|----|----|----|----|----|----|----|
| 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
|---|---|---|----|----|----|----|----|----|----|----|

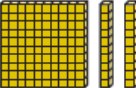
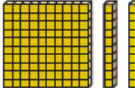
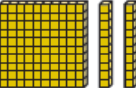
| | | | | | | | | | | |
|---|---|----|----|----|----|----|----|----|----|----|
| 0 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
|---|---|----|----|----|----|----|----|----|----|----|

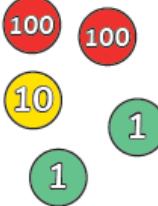


Counting in 50s and 100s

| | | | | | | | | | | |
|---|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|---|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

| | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|

10 and 100 More or Less

| Ten Less | | Ten More |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |
| 120 | 130 | 140 |

| One Hundred Less | | One Hundred More |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |
| 212 | 312 | 412 |

Addition and Subtraction

Knowledge Organiser

Key Vocabulary

add

total

plus

sum

more

altogether

difference

subtract

less

minus

take away

column addition

column subtraction

exchange

estimate

inverse operation

solve problems

number facts

place value



Addition and Subtraction Methods

3-digit and 1-digit numbers

Not crossing 10s

$$268 - 4 = 264$$

| Hundred | Ten | Ones |
|---------|-----|------|
| | | |

$$343 + 6 = 349$$



Crossing 10s **(Regrouping)**

| 324 | | |
|-----|----|----|
| 300 | 20 | 4 |
| 300 | 10 | 14 |
| | | |

$$316 + 8 = 324$$

| 316 | 8 |
|-----|---|
| | |

$$324 - 8 = 316$$

3-digit and 2-digit numbers

Add and subtract tens

| Hundred | Ten | Ones |
|---------|-----|------|
| | | |

$$451 + 3 \text{ tens} = 481 \quad (5 + 3 = 8)$$

$$451 - 4 \text{ tens} = 411 \quad (5 - 4 = 1)$$

Crossing 10s **(Regrouping)**

$$258 + 80 = 338$$

- Column method
- Count in 10s mentally
- Add 100, subtract 20

Crossing 10 and 100

$$\begin{array}{r} 368 \\ +73 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 31 \\ 441 \\ -73 \\ \hline 8 \end{array}$$

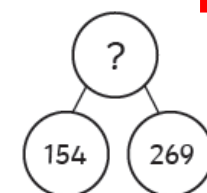
3-digit numbers

Not crossing

$$679 - 351 = 328$$

| Hundred | Ten | Ones |
|---------|-----|------|
| | | |

Crossing 10s **(Regrouping)**



$$\begin{array}{r} 269 \\ +154 \\ \hline 423 \\ 11 \end{array}$$

| | |
|-----|---|
| 514 | |
| 268 | ? |

$$\begin{array}{r} 4101 \\ 514 \\ -268 \\ \hline 246 \end{array}$$

Add and Subtract 100s

$$284 + 300 = 584$$

| Hundred | Ten | Ones |
|---------|-----|------|
| | | |
| | | |

Multiplication and Division

Knowledge Organiser

Key Vocabulary

Multiplication and Division Facts (3, 4 and 8 multiplication tables)

times tables

multiply by

divide by

array

fact families

regrouping

| x | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| 11 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 |
| 12 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |

3 x Tables

$1 \times 3 = 3$
 $2 \times 3 = 6$
 $3 \times 3 = 9$
 $4 \times 3 = 12$
 $5 \times 3 = 15$
 $6 \times 3 = 18$
 $7 \times 3 = 21$
 $8 \times 3 = 24$
 $9 \times 3 = 27$
 $10 \times 3 = 30$
 $11 \times 3 = 33$
 $12 \times 3 = 36$

$3 \div 3 = 1$
 $6 \div 3 = 2$
 $9 \div 3 = 3$
 $12 \div 3 = 4$
 $15 \div 3 = 5$
 $18 \div 3 = 6$
 $21 \div 3 = 7$
 $24 \div 3 = 8$
 $27 \div 3 = 9$
 $30 \div 3 = 10$
 $33 \div 3 = 11$
 $36 \div 3 = 12$

4 x Tables

$1 \times 4 = 4$
 $2 \times 4 = 8$
 $3 \times 4 = 12$
 $4 \times 4 = 16$
 $5 \times 4 = 20$
 $6 \times 4 = 24$
 $7 \times 4 = 28$
 $8 \times 4 = 32$
 $9 \times 4 = 36$
 $10 \times 4 = 40$
 $11 \times 4 = 44$
 $12 \times 4 = 48$

$4 \div 4 = 1$
 $8 \div 4 = 2$
 $12 \div 4 = 3$
 $16 \div 4 = 4$
 $20 \div 4 = 5$
 $24 \div 4 = 6$
 $28 \div 4 = 7$
 $32 \div 4 = 8$
 $36 \div 4 = 9$
 $40 \div 4 = 10$
 $44 \div 4 = 11$
 $48 \div 4 = 12$

8 x Tables

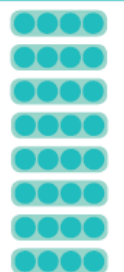
$1 \times 8 = 8$
 $2 \times 8 = 16$
 $3 \times 8 = 24$
 $4 \times 8 = 32$
 $5 \times 8 = 40$
 $6 \times 8 = 48$
 $7 \times 8 = 56$
 $8 \times 8 = 64$
 $9 \times 8 = 72$
 $10 \times 8 = 80$
 $11 \times 8 = 88$
 $12 \times 8 = 96$

$8 \div 8 = 1$
 $16 \div 8 = 2$
 $24 \div 8 = 3$
 $32 \div 8 = 4$
 $40 \div 8 = 5$
 $48 \div 8 = 6$
 $56 \div 8 = 7$
 $64 \div 8 = 8$
 $72 \div 8 = 9$
 $80 \div 8 = 10$
 $88 \div 8 = 11$
 $96 \div 8 = 12$

Write and Calculate Mathematical Statements

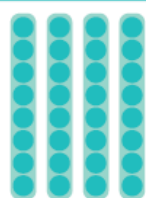
$$4 \times 8 = 32$$

$$32 \div 8 = 4$$



$$8 \times 4 = 32$$

$$32 \div 4 = 8$$



$$5 \times 3 = 15$$

$$15 \div 3 = 5$$



$$3 \times 5 = 15$$

$$15 \div 5 = 3$$



Related Calculations

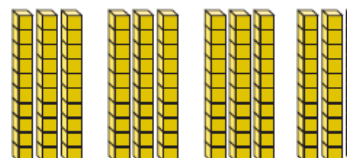
$$3 \times 4 = 12$$



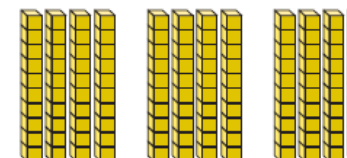
$$4 \times 3 = 12$$



$$30 \times 4 = 120$$



$$40 \times 3 = 120$$



Writing Mat Expected Year 3

Punctuation Power!

| | |
|-----------|--------------------------------------------------------------------------------------------------------------------|
| A | Capital letters for the start of sentences, names and places. |
| . | A full stop at the end of a sentence. |
| ! | Exclamation marks for exclamations or surprise. |
| ? | Question marks for questions. |
| ' | Apostrophes for showing something belongs to someone and to mark missing letters in contracted words, e.g. didn't. |
| , | Commas to separate items on a list. |
| “” | Inverted commas to show direct speech. |

Fantastic Ways to Show Time, Place and Cause in Your Sentences

| Subordinating Conjunctions | | |
|----------------------------|--------|------------|
| when | before | because |
| after | while | |
| Prepositions | | |
| in | during | because of |
| over | near | until |
| above | behind | |
| Adverbs | | |
| next | soon | then |
| therefore | | |

Can you squeeze in some co-ordinating conjunctions?

| | |
|----------|-----|
| F | for |
| A | and |
| N | nor |
| B | but |
| O | or |
| Y | yet |
| S | so |

Know your Prefixes

| |
|-----------------------|
| un- means not |
| pre- means before |
| mis- means wrong |
| super- means above |
| re- means again |
| sub- means under |
| inter- means between |
| anti- means against |
| auto- means self |
| im/ir/in/il- mean not |

Which is Witch? Don't Muddle Your Homophones

| |
|---------------------|
| there/their/they're |
| our/are |
| two/too/to |
| your/you're |
| here/hear |

Super Spellings... I need to know **most** of these:

| | | | | | |
|--------------|-----------|------------|--------------|------------|-----------|
| accident | centre | experience | important | ordinary | reign |
| accidentally | century | experiment | interest | particular | remember |
| actual | certain | extreme | island | peculiar | sentence |
| actually | circle | famous | knowledge | perhaps | separate |
| address | complete | favourite | learn | popular | special |
| although | consider | February | length | position | straight |
| answer | continue | forwards | library | possess | strange |
| appear | decide | fruit | material | possession | strength |
| arrive | describe | grammar | medicine | possible | suppose |
| believe | different | group | mention | potatoes | surprise |
| bicycle | difficult | guard | minute | pressure | therefore |
| breath | disappear | guide | natural | probably | though |
| breathe | early | heard | naughty | promise | thought |
| build | earth | heart | notice | purpose | through |
| busy | eight | height | occasion | quarter | various |
| business | eighth | history | occasionally | question | weight |
| calendar | enough | imagine | often | recent | woman |
| caught | exercise | increase | opposite | regular | women |

Don't forget to organise your writing into **paragraphs**. Each one needs a few sentences linked to the same theme.

Knowledge organiser

Within living memory...

Masato Sagawa (1943-)



Creator of the strongest permanent magnet.

Beyond living memory...

Leonardi Da Vinci (1452-1519)



Inventor who investigated forces and friction.

Vocabulary

Tier 2: push, pull, surface, movement, magnet, attract, repel, north/south pole, metal, iron, steel, nickel

Tier 3: contact/non-contact force, friction, resistance, gravity, magnetic field, magnetism, horseshoe/bar/ring magnet

Disciplinary: observe, identify, method, fair test, variable, conclusion, predict, record, data

Magnetic Materials

| Iron | Nickel | Steel | Stainless steel |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |





Knowledge Organiser- Spatial Sense (Geography Year 3)

| Key Vocabulary | Definition |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Eight-point compass | A tool used for navigation, shows the following directions; north, north-east, east, south-east, south, south west, west and north west. |
| Grid reference | A set of information (often a letter and a number) that locates a place on a map. |
| Symbols | Small simple pictures that represent different things on a map. |
| Key | A key gives information about the symbols included on a map. |
| Human features | Man-made features of an area, for example, buildings, bridges and roads. |
| Physical features | Natural features of an area, for example, rivers, hills, valleys. |

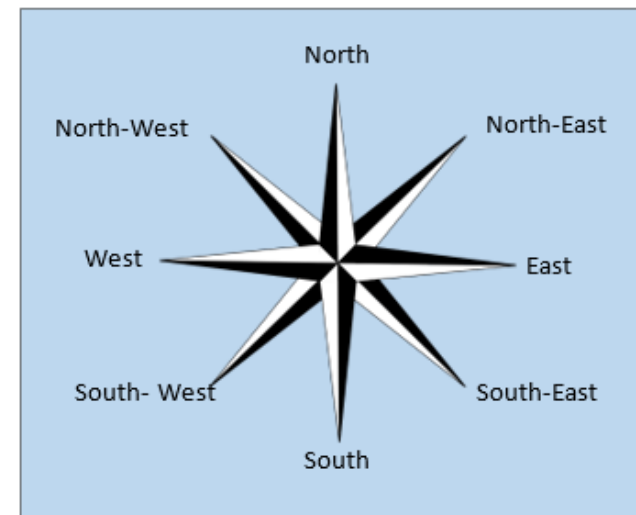
Map of the Local Area



Contrasting Physical Geography

| Naples - Italy | Hildenborough - UK |
|----------------|--------------------|
| | |

Eight Point Compass



Knowledge Organiser: Year 3 Dance Unit 1



Prior Learning:

Perform using more sophisticated formations as well as an individual. Use the stimuli to copy, repeat and create dance actions and motifs.

Equipment needed: Music player, music, cones, hoops, throw down spots, balloons, laptop internet access, chairs.

Unit Focus:

Practise and put together a performance. Perform using facial expressions. Perform with a prop.



Key Vocabulary/Skills

Perform a jazz square.

Perform as 2 contrasting characters.

Explore characters through description.

Communicate ideas as part of a group.

Use a prop in a 4-action dance phrase.

Facial expression, improvisation, rehearse, director.

Head: Describe features of dances performed by others.

Hand: Competently include props and other ideas in their dance.

Heart: Share and create short dance phrases.

Key Questions:

1. Why are facial expressions important in dance?
2. What actions might you perform when scared? (or happy or sad)
3. What other props might you have in dance?

Concepts:

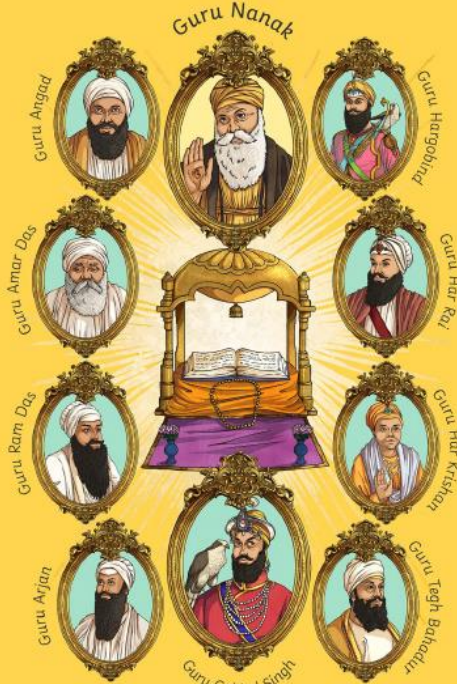
- Props are objects that dancers use to enhance their dance like chairs, fans, ribbons and swords.
- Choreography is the act of designing a dance.



Sikhism

gurus

symbols



festivals



The 5 Ks

