

Lightning

Lightning can be a very dangerous and frightening thing. Some people would say that it is also very beautiful to watch. Lightning is a bright flash of electricity that is produced by a thunderstorm. When you see a bolt of lightning, you can be sure that the sound of thunder will follow.

Lightning is an electric current. For lightning to form, there must be many small bits of ice (or frozen raindrops) bumping into each other as they move around in the air within a thundercloud. When all of these frozen raindrops collide, they create an electric charge.

The next step in the formation of lightning is when the whole thundercloud fills up with electrical charges. The charges separate, with the positive charges forming at the top and the negative charges forming at the bottom.

After a while, a positive charge builds up on the ground beneath the cloud. The charge coming up eventually connects with a charge reaching down from the clouds. Lastly, these charges connect and a lightning strike is formed.

Lightning

- Which one of these things happens **before** an electric charge?
 - a positive charge builds up
 - small bits of ice bump into each other
 - a lightning strike is formed
- Number the following sentences in the correct order.
 - ___ The whole thundercloud fills up with electrical charges.
 - ___ A positive charge builds up on the ground beneath the cloud.
 - ___ A lightning strike is formed.
 - ___ The positive and negative charges separate.
 - ___ Frozen raindrops collide to create an electric charge.
- What is the final step before seeing a lightning strike?
- Draw and label an illustration that explains how lightening is formed.

CRAZY CREATIVE CHALLENGE

Create an artwork to show what a thunderstorm looks like.

Name _____

Date _____

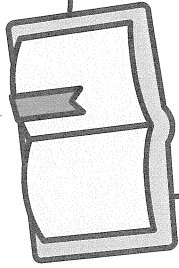
Lightning

- Which one of these things happens **before** an electric charge?
 - a positive charge builds up
 - small bits of ice bump into each other
 - a lightning strike is formed
- Number the following sentences in the correct order to explain how lightning is formed.
___ The whole thundercloud fills up with electrical charges.
___ A positive charge builds up on the ground beneath the cloud.
___ A lightning strike is formed.
___ The positive and negative charges separate.
___ Frozen raindrops collide to create an electric charge.

- What is the final step before seeing a lightning strike?

- Draw and label an illustration that explains how lightning is formed.

BOOK REVIEW



Book summary:

TITLE: _____
AUTHOR: _____
GENRE: _____
TIME ERA: _____
LOCATION: _____
MAIN CHARACTERS: _____

Favourite Character:

Gender: _____
Age: _____
Close Relationships: _____

Explain why this character is your favourite:

Favourite part:

Name: _____

Date: _____

Crossword

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Word Work Grid

Complete each of the activities in this grid. Write the date you completed each activity on the line provided.

<p>Syllable Sort Write your spelling words in order from the least amount of syllables to the most. Words with the same number of syllables should be in alphabetical order.</p> <p>Date: _____</p>	<p>Odd One Out For each of your spelling words, write four words. One is your spelling word, two relate to your spelling word and one is the odd word out that doesn't fit with the other two.</p> <p>Date: _____</p>	<p>Wacky Words On a sheet of paper, write your spelling words in different directions, filling up the whole sheet. Use different colours and types of writing for each word.</p> <p>Date: _____</p>	<p>Word Detective Write three clues about each of your spelling words. Ask someone to try to guess your spelling words using your clues.</p> <p>Date: _____</p>	<p>Digging in the Dictionary Use a dictionary to find the definition and write a sentence for each of your spelling words.</p> <p>Date: _____</p>
<p>Rhyming Wheels Think of as many words as you can that rhyme with your spelling words.</p> <p>Date: _____</p>	<p>Alliteration Write a sentence for each of your spelling words using as much alliteration as possible.</p> <p>Date: _____</p>	<p>Sentence Smart Write a sentence for each of your spelling words.</p> <p>Date: _____</p>	<p>Story Time Write a story using as many of your spelling words as you can. Underline each of your spelling words.</p> <p>Date: _____</p>	<p>Sort Them Out Sort the words on your spelling list into three different categories of your choice.</p> <p>Date: _____</p>
<p>Word Search Create your own word search using all the words on your spelling list.</p> <p>Date: _____</p>	<p>Handwriting Hero Write out your spelling words in your very best cursive hand writing.</p> <p>Date: _____</p>	<p>Letter Lingo Write a letter to a friend. Use as many spelling words in your letter as you can.</p> <p>Date: _____</p>	<p>Words Within Words Make a list of as many smaller words as you can find from your spelling list.</p> <p>Date: _____</p>	<p>Code Breaker Use the code guide to make a code for each of your spelling words.</p> <p>Date: _____</p>

Spelling Lists

List 1

List 2

List 3

List 4

List 5

about
after
again
an
any
as
ask
ate
away
been
before
best
boy
by
call
came
could
day
down
eat

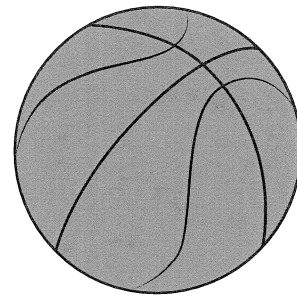
every
family
find
first
from
funny
give
going
had
have
help
her
here
him
his
how
if
into
jump
just

know
let
live
long
look
man
many
may
much
must
new
now
of
off
old
one
open
or
out
over

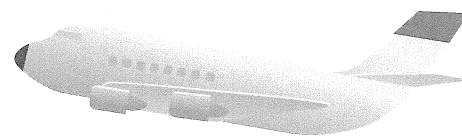
play
please
pretty
put
read
ride
right
round
saw
say
some
soon
stop
story
take
tell
thank
their
them
then

these
think
three
two
under
us
use
very
walk
want
well
went
were
when
where
which
why
work
would
your

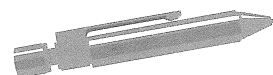
13. Kevin is great at basketball. His team scored 24 points in the first quarter, 32 in the second, 19 in the third and 25 in the fourth. If his team mates scored 54 points, how many points did Kevin score?



14. Jill's family fly 8 432 km to arrive at their favourite holiday destination. They are in mid-air and have flown 6 212 km. If the plane's tank of fuel can allow it to fly for 12 000 km, how much further could they fly from their current location?



15. The class had their biggest exam of the year. The first half of the exam took 1 hour 40 minutes. They were allowed a 30 minute break before beginning the second part of the exam. If the exam began at 11.00 am and finished at 2.00 pm, how long did the second half of the exam take?



Looking at whole numbers – ordering numbers

When we place numbers in order, we need to look carefully at the position and the value of each digit. Are these numbers in the right order?

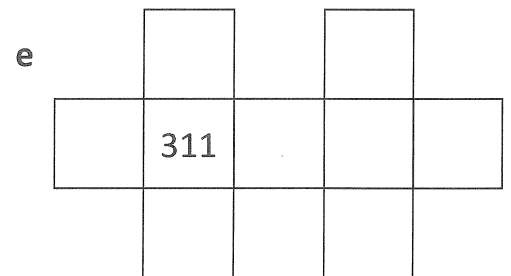
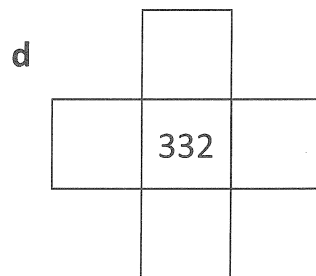
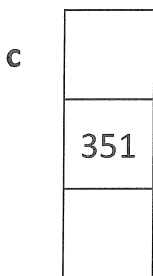
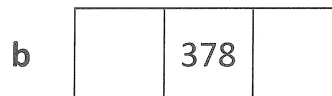
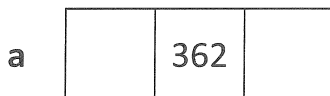
345, 354, 453, 534

We are now going to practise working with numbers up to 1 000.

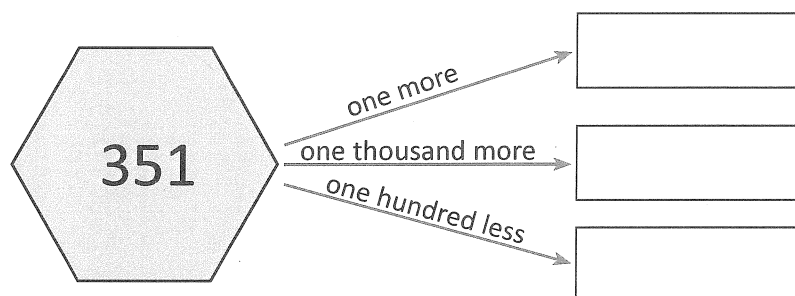
1 Here is a section of a hundred chart. Complete the missing numbers:

221	222	223		225	226	227	228	229	230
231	232		234	235	236		238		240
241		243	244	245	246		248	249	250
251	252	253	254		256	257	258	259	260
	262		264	265	266	267	268	269	270

2 Imagine this chart continued into the 300s. Complete the missing numbers from these parts:



3 Create these numbers:



Subtraction mental strategies – patterns

Recognising patterns in subtraction is useful in extending known facts.

Can you see the pattern in this set of facts?

$17 - 3 = 14$

$37 - 3 = 34$

$27 - 3 = 24$

$47 - 3 = 44$

- 1 Extend each set of subtraction patterns in the sets below and then shade the answers on this grid:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

a Set 1

$$\begin{array}{l} \boxed{8} - \boxed{2} = \boxed{} \\ \boxed{18} - \boxed{2} = \boxed{} \\ \boxed{28} - \boxed{2} = \boxed{} \\ \boxed{38} - \boxed{2} = \boxed{} \\ \boxed{48} - \boxed{2} = \boxed{} \\ \boxed{58} - \boxed{2} = \boxed{} \\ \boxed{68} - \boxed{2} = \boxed{} \\ \boxed{78} - \boxed{2} = \boxed{} \end{array}$$

b Set 2

$$\begin{array}{l} \boxed{25} - \boxed{4} = \boxed{} \\ \boxed{35} - \boxed{4} = \boxed{} \\ \boxed{45} - \boxed{4} = \boxed{} \\ \boxed{55} - \boxed{4} = \boxed{} \\ \boxed{65} - \boxed{4} = \boxed{} \\ \boxed{75} - \boxed{4} = \boxed{} \\ \boxed{85} - \boxed{4} = \boxed{} \\ \boxed{95} - \boxed{4} = \boxed{} \end{array}$$

c Set 3

$$\begin{array}{l} \boxed{19} - \boxed{6} = \boxed{} \\ \boxed{29} - \boxed{6} = \boxed{} \\ \boxed{39} - \boxed{6} = \boxed{} \\ \boxed{49} - \boxed{6} = \boxed{} \\ \boxed{59} - \boxed{6} = \boxed{} \\ \boxed{69} - \boxed{6} = \boxed{} \\ \boxed{79} - \boxed{6} = \boxed{} \\ \boxed{89} - \boxed{6} = \boxed{} \end{array}$$

- 2 Extend this subtraction pattern beyond the hundred grid:

a $\boxed{88} - \boxed{7} = \boxed{}$
 d $\boxed{118} - \boxed{7} = \boxed{}$

b $\boxed{98} - \boxed{7} = \boxed{}$
 e $\boxed{128} - \boxed{7} = \boxed{}$

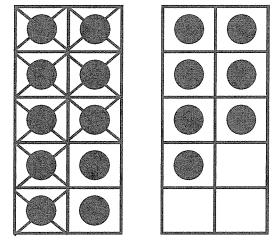
c $\boxed{108} - \boxed{7} = \boxed{}$
 f $\boxed{138} - \boxed{7} = \boxed{}$

Subtraction mental strategies – bridge to ten

A ten frame is useful to show the bridge to ten strategy when subtracting.

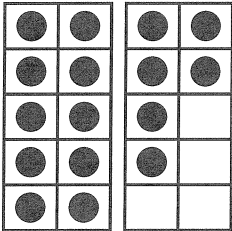
Here are 17 counters in 2 tens frames.

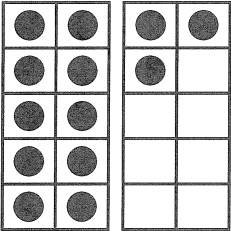
When you see $17 - 8 = \square$, cross out 8 from the first ten frame then add what is left.

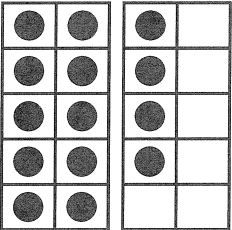


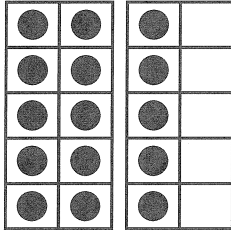
$$17 - 8 = 9$$

- 1 Use each ten frame to subtract using bridge to ten. Cross out the number of counters that are subtracted from the first ten frame:

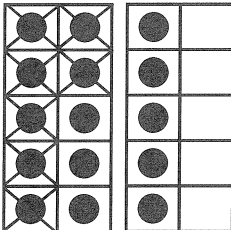
a  $16 - 9 = \square$

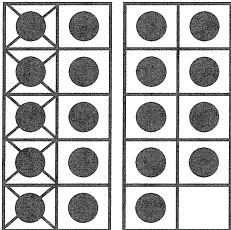
b  $13 - 7 = \square$

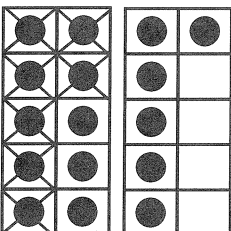
c  $14 - 9 = \square$

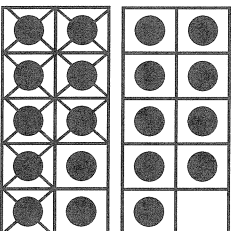
d  $15 - 8 = \square$

- 2 Write a subtraction fact that matches each ten frame:

a  $\square - \square = \square$

b  $\square - \square = \square$

c  $\square - \square = \square$

d  $\square - \square = \square$