Topic:
Number skills, Bidmas and statistics

Your Name
Your Personal Learning Thinking Skills = PLTS

- Self Manager (SM)
- Effective Participator (EP)
- Reflective Thinker (RF)
- Creative Thinker (CT)
- Independent Enquirer (IE)
- Team Worker (TW)
The Literacy section are the words that you need to know to access this work.
On the page supplied you need to describe each of the words

The research section is for you to find out a little more information about the topic.
In the space provided please put your research answers

Skills Practise is for you to have a go at the questions
Applying the skills learnt in your lessons.
There should be enough space in the box.

Stretch is a section for you to try the slightly harder questions.

Use the section on the next page
Basic Calculations

**Literacy**

Addition
Subtraction
Multiplication
Division

**Research**

Find out the definitions of each of the words from the Literacy section

**Memory**

Practice your 6 and 9 times tables ready for a test

**Skill Practice**

*Mental Calculations*

Answer these addition problems.

a 43 + 35 =

c 128 + 231 =

e 593 + 237 =

b 54 + 28 =

d 234 + 316 =

Answer these subtraction problems.

a 58 − 26 =

c 288 − 154 =

e 405 − 256 =

b 82 − 28 =

d 318 − 154 =
Write an addition problem using words
_________________________________
_________________________________
_________________________________

Write a subtraction problem using words
_________________________________
_________________________________
_________________________________

Write a division problem using words
_________________________________
_________________________________
_________________________________
_________________________________

Write a multiplication problem using words
_________________________________
_________________________________
_________________________________
_________________________________
_________________________________

Research
Find out the definitions of each of the words from the Literacy section
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Mr and Mrs Davis want to take their grandchildren to a farm. Their grandchildren are two, five and seven years old.

The entry prices to the farm are:

<table>
<thead>
<tr>
<th>Adult</th>
<th>£8.95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children under 16</td>
<td>£6.90</td>
</tr>
<tr>
<td>Children under 3</td>
<td>free</td>
</tr>
</tbody>
</table>

Will the trip to the farm cost less than £35?

Answers to Stretch question:
Rounding

**Literacy**
Estimate, Approximate, Significant, Decimal, Accuracy

**Research**
Think of a real-life example of where you would round to one significant figure. This could be a use for significant figures in another subject in school!

**Memory**
Learn the prime numbers from 1 - 50

**Skill Practice**

<table>
<thead>
<tr>
<th>Number</th>
<th>Level of accuracy</th>
<th>Rounded answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Nearest 10</td>
<td></td>
</tr>
<tr>
<td>193</td>
<td>Nearest 100</td>
<td></td>
</tr>
<tr>
<td>750</td>
<td>Nearest 100</td>
<td></td>
</tr>
<tr>
<td>3219</td>
<td>Nearest 10</td>
<td></td>
</tr>
<tr>
<td>6320</td>
<td>Nearest 1000</td>
<td></td>
</tr>
<tr>
<td>153</td>
<td>Nearest 10</td>
<td></td>
</tr>
<tr>
<td>4.67</td>
<td>Nearest whole number</td>
<td></td>
</tr>
<tr>
<td>23.5</td>
<td>Nearest Whole number</td>
<td></td>
</tr>
</tbody>
</table>
What does Estimate mean

What does Approximate mean

What does Significant mean

What does Accuracy mean

Think of a real-life example of where numbers can be rounded
A tower block is 200m high to the nearest 100m, and 170m high to the nearest 10m.

Write down one possible height for this tower block.

Answers to Stretch question:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
BIDMAS – Order of operations

**Literacy**

Brackets, Indices, Division, Multiplication, Addition, Subtraction, Operations

**Research**

Other than BIDMAS, what other acronyms are used for the order of operations?

**Memory**

Learn the order of operations (the order in which you carry out calculations)

- Brackets
- Indices
- Division / Multiplication
- Addition / Subtraction

**Skill Practice**

a) \[ 5 + 3 \times 3 = \]
b) \[ 20 - 7 \times 2 = \]
c) \[ (6 + 2) \times 9 = \]
d) \[ (12 - 2) \div 5 = \]
e) \[ 2 + 3^2 \times 4 = \]
f) \[ 80 - 3 \times 5^2 = \]
g) \[ 30 - 3 \times 7 + 5 = \]
h) \[ 3 \times 4 + 1 \times 6 = \]
i) \[ 5(2 + 7) + 1 = \]
j) \[ (2 + 5)^2 = \]
What are brackets? And why are they used ________________
_____________________________
_____________________________

What are Indices?
What do they mean?
__________________________
__________________________
__________________________
__________________________

What does division mean?
What other words do we use for division?
_____________________________
_____________________________
_____________________________
_____________________________

What does Multiplication mean?
What other words do we use for Multiplication? _____________
_____________________________
_____________________________
_____________________________

What does Addition mean?
What other words do we use for addition?
_____________________________
_____________________________
_____________________________
_____________________________

Other than BIDMAS, what other acronyms are used for the order of operations?
_____________________________
_____________________________
_____________________________
_____________________________
_____________________________
Answers to Stretch questions:

a)  

b)  

c)  

d)  

e)  

Stretch!
Use brackets to make these statements true.

a) \(3 + 7 \times 4 = 40\)

b) \(5 \times 10 - 2 = 40\)

c) \(6 + 5 - 3 = 3\)

d) \(6 + 2 + 7 \times 2 = 20\)

e) \(5 \times 10 - 2^2 = 2304\)
Basic Calculations

## Literacy
1. Frequency Table
2. Bar Chart
3. Axes

## Research
Find a piece of data in a newspaper, magazine or on the internet, which is displayed in a bar chart

## Memory
When drawing bar charts:
- All bars must be of equal width
- Bars must have equal spaces between them

## Skill Practice
Visitors are asked ‘How much did you enjoy your visit?’
The four choices are Poor, Fair, Good and Excellent.
The results are recorded in a frequency table.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of votes</td>
<td>11</td>
<td>7</td>
<td>29</td>
<td>18</td>
</tr>
</tbody>
</table>

Draw a bar chart to display this data.
What does a frequency chart show?
_________________________________
_________________________________
_________________________________

Write 2 things that all good bar charts should have?
_________________________________
_________________________________
_________________________________

What are axes?
_________________________________
_________________________________
_________________________________

Please attach a copy of the article here
_________________________________
_________________________________
_________________________________
_________________________________
_________________________________
What does a frequency chart show?
_____________________________
_____________________________
_____________________________

What are axes?
_______________________
_______________________
_______________________

Write 2 things that all good bar charts should have?
_________________________________
_________________________________
_________________________________

What are axes?
_______________________
_______________________
_______________________

Please attach a copy of the article here
_________________________________
_________________________________
_________________________________
_________________________________
_________________________________
_________________________________
**Answers to Stretch question:**

- a  What is this survey about?
- b  What is the mode?
- c  How many people had hot dogs?
- d  Which food item was chosen 17 times?
- e  How many people were surveyed?
- f  What might ‘Other’ mean?
**Research**

What does bimodal mean? Give an example.

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**Skill Practice**

Complete the table:

<table>
<thead>
<tr>
<th>Data</th>
<th>Mode</th>
<th>Median</th>
<th>Mean (to 1 dp)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>4, 5, 7, 8, 8, 10, 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>£45, £50, £65, £69, £75, £75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, 5, 7, 8, 9, 10, 11, 11, 12, 15, 16, 17, 19, 20, 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21, 8, 5, 0, 14, 17, 1, 27, 32</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Mean,
2. Median,
3. Mode,
4. Range,
5. Average

How do you calculate the mean of a set of data

How do you calculate the median of a set of data

How do you calculate the mode of a set of data

How do you calculate the range of a set of data

Does average mean
a) The mean
b) The mode
c) The range
d) The median
e) All of the above

What does bimodal mean? Give an example
Find:

a. 5 numbers with a mode of 3 and a mean of 6.

a. 4 numbers with a range of 6, a mean of 4 and a median of 3.

Answers to Stretch questions:

________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________