Keyworth Primary School

Year 6 – Miri and Chontel's Maths group 6MC

Maths this week

The focus for this week's learning is **multiplication and division**: practicing skills. Use paper and a pencil to complete the tasks in the Word document.

You could also have a look at Educreate slides on Google Classroom to help you understand the tasks.

Lesson 1 -

Resources: Hundred Square and X table grid at the bottom of the sheet.

Learning question:
Can I multiply numbers by a 1-digit number?
Success criteria:
☐ I can line up my digits accurately in columns
☐ I can identify the place value of each digit
☐ I can carry a value forward
I can use my understanding of short multiplication to solve problems

Today, you're going to **practice** your **short multiplication**, using the formal written strategy.

You will the use your understanding of the strategy / steps to solve problems.

You will also use your prior learning, *e.g.* *rounding* *to estimate.*

Task 1) Estimate the answer by rounding (circle/write your chosen one) and then check with a calculation.

  a) **156 x 4 =**

Estimate your answer: 624   524   642   618

Actual answer = ……………………………………..

  b) **392 x 3 =**

Estimate your answer: 1176   2076   1076   976

Actual answer = …………………………………….

Task 2: Look at the two sums:

  a) Which is the correct answer? ……………………………….

  b) What went wrong with one of them? What did I forget to do? ……………………………………………..

493 x 5 = 2055	493 x 5 = 2465

TIP: Calculate the problem correctly – identify the problem.

349 × 3 = 1047

Learning question:
Can I multiply numbers by a 1-digit number?

Success criteria:
☐ I can identify the place value of each digit
☐ I can use my times tables
☐ I can use a place holder '0' when multiplying tens

I can use my understanding of long multiplication to solve problems

Today, you will practice your long multiplication (see example below)

You will estimate answers by rounding to the nearest 10.

Eg. 248 x 17

You will

Will the answer be more than
5000 or **4000?**
To the nearest 10
250 x 20 =
250 x10 = 2500
250 x 10 = 2500
2500 + 2500 = **5000**

The numbers in the problem are lesson than the rounded up figure, so they CAN'T be more the 5000

```
      2  4  8
   X     1  7
   1  7  3  6
   2  4³ 8⁵ 0
   4  2  1  6
   1     1
```

then use long multiplication and prior learning to solve some problems , including word problems.

(Remember: read the problem carefully, identify the key information and number sentence needed. Then check, have you answered the question properly!)

:
1) 34 x 56
2) 123 x 16

1) **16 x 23 =**

   a) Will the answer be closer to:
      200? or 400? Use rounding.
   b) Calculate the answer:

2) **152 x 18 =**

   a) Will the answer be more than:
      3000? or 4000? Use rounding.
   b) Calculate the answer:

:

1) *A toy shop orders 11 boxes of marbles. Each box contains 6 bags of marbles. Each bag contains 45 marbles. How many **marbles** does the shop order in total?*

   <u>HINT</u>: *more than one calculation!*

2) *Chontel bought 23 bags of crisps at £1.21 each. How much did she spend in total?*

Lesson 3 -

Learning question:
Can I divide whole numbers by a 1-digit number?

Success criteria:
- ☐ I can apply my knowledge times tables facts
- ☐ I can divide a number where the answer is whole
- ☐ I can divide a number where the answer is a decimal

Today, you will practice short division.

You will answer several questions with <mark>whole number</mark> and <mark>decimal answers</mark>.

```
    0 3 7  r2
  6 2²2⁴4
```

6, 12, 18, 24, 30, 36, 42

Here's a reminder of how to do short division using the bus stop method.

However, what if instead of a <mark>remainder</mark>, you want a decimal answer?
<mark>See below:</mark>

2²2⁴4 ÷ 6=

1) 6 into 2 = 0
2) carry 2 forward
3) 6 into 22 = **3r4**
4) carry 4 forward
5) 6 into 44 = **7 r2**

= 37 r4

```
      0 7 0.2
  5 ) 3³5 1.¹0
```

3 5 1 ÷ 5 = 7 0.2

1) Complete the problem normally.

2) When you get to the end, if you have a remainder, put a decimal point at the end of the unit digit and move the value forward to the next place value along ('0' place holder).

3) Continue to forward until there are no remainders.

Task 1

1054 ÷ 2 =	2050 ÷ 5 =
4535 ÷ 5 =	2430 ÷ 5 =
4725 ÷ 7 =	3375 ÷ 9 =

Task 2:
Use the symbols < > = to compare answers to the following sums.

$$< \quad > \quad =$$

1,767÷3		1,692÷4

Multiplication Table - 25x25

	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
1	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
2	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
3	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72	75
4	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	84	88	92	96	100
5	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125
6	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	150
7	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154	161	168	175
8	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160	168	176	184	192	200
9	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144	153	162	171	180	189	198	207	216	225
10	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250
11	11	22	33	44	55	66	77	88	99	110	121	132	143	154	165	176	187	198	209	220	231	242	253	264	275
12	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240	252	264	276	288	300
13	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195	208	221	234	247	260	273	286	299	312	325
14	14	28	42	56	70	84	98	112	126	140	154	168	182	196	210	224	238	252	266	280	294	308	322	336	350
15	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360	375
16	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320	336	352	368	384	400
17	17	34	51	68	85	102	119	136	153	170	187	204	221	238	255	272	289	306	323	340	357	374	391	408	425
18	18	36	54	72	90	108	126	144	162	180	198	216	234	252	270	288	306	324	342	360	378	396	414	432	450
19	19	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323	342	361	380	399	418	437	456	475
20	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	500
21	21	42	63	84	105	126	147	168	189	210	231	252	273	294	315	336	357	378	399	420	441	462	483	504	525
22	22	44	66	88	110	132	154	176	198	220	242	264	286	308	330	352	374	396	418	440	462	484	506	528	550
23	23	46	69	92	115	138	161	184	207	230	253	276	299	322	345	368	391	414	437	460	483	506	529	552	575
24	24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480	504	528	552	576	600
25	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625

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