Whitnash Primary School

Learning, growing and succeeding together

Year 5 Maths/English Home Learning Grid for 22nd February onwards

MATHS

Sequence 1

Multiples and factors - revision

1. A **multiple** is a number that can be divided by another without a remainder. **Can you write down 5 multiples of 9?**
2. To find the **factors** of a number, you need to find all the pairs of numbers that multiply together to make a product. 2 × 5 = 10 2 and 5 are factors. 10 is the product **Can you find all the factors of 36?**

Play the factors and multiple game below with someone in your house.

Factor pairs -revision

1. This is an example of a factor pair rainbow for the

number 24. The numbers on each colour multiply together to make the target number. **Draw factor pair rainbows for the following numbers: 12, 48, 64. Which number has the most colours?**

Further learning:

Investigate this statement: **48 has more factors than any other number below 100. True or false?**

Prime numbers -revision

1. A prime number is a number greater than 1 that cannot be divided by any other number apart from 1 and itself. **Find all prime numbers from 1-100. List them.**

Complete the prime number maze below.

Further learning:

Use the blank 100 grid to create your own prime number maze for someone else to solve. Choose your own theme. Tip: fill in the prime number pathway first then fill in the other boxes randomly.

Factor and multiple chains

This is an example of a factor and multiple chain;

Each number is linked as a factor and multiple. **Can you make some chains of your own?**

Further learning: answer the questions below related to the chains you have made.

What are the smallest blue numbers that will make a complete chain?

What are the largest blue numbers that will make a complete chain?

What numbers cannot appear in any chain?

Multiplying and dividing by 10, 100, 1000

We can use a multiplication fact we are familiar with to help us multiply and divide much larger numbers e.g.

3 x 2 = 6

30 x 2 =60

300 x 2 =600

3 x 20 =60

3 x 200 = 600

60 ÷ 2 = 30

600 ÷ 2 = 300 etc….

Choose your own multiplication fact and challenge yourself to write as many related x and ÷ facts as you can.

Further learning:

What could the values of A and B be? Find 3possible solutions.

A x 100 = B x 1000

Sequence 2

Doubling and halving strategies – x and ÷ by 4

When you need to multiply by 4 use can use doubling to help you.

For example:

13 x 4 = double 13 = 26, double 26 = 52, so the answer is 52!

Use this method to answer the questions below:

32 x 4 =

54 x 4 =

106 x 4 =

510 x 4 =

This method can also be reversed to help you divide by 4, for example:

68 ÷ 4 = halve 68 = 34, halve 34 = 17,so the answer is 17!

Use this method to answer the questions below:

72 ÷ 4 =

96 ÷ 4 =

184 ÷ 4 =

888 ÷ 4 =

Further learning: Write a word problem that requires dividing or multiplying by 4 for someone else to solve.

Doubling and halving strategies – x and ÷ by 8

Following on from yesterday we can develop this strategy to help us x and ÷ by 8.

13 x 8 = double 13 = 26, double 26 = 52, double 52 = 104. So the answer is 104!

We double the number 3 times. To divide we halve the number 3 times. Use these methods to answer the questions below:

45 x 8 =

52 x 8 =

184 ÷ 8 =

368 ÷ 8 =

75 x 8 =

528 ÷ 8 =

Further learning: To multiply by 16 you need to double the number 4 times.

Answer the questions below:

4 x 16 =

13 x 16 =

25 x 16=

102 x 16 =

Using doubling and halving to simplify calculations (x and ÷ by 5)

How would you tackle the calculation 48 x 5? You can make it simpler so you can work it out in your head. You can halve one of the numbers and double the other to make the numbers easier to use, for example:

48 x 5 becomes 24 x 10

(halve the 48 and double the 5)

24 x 10 = 240 so

48 x 5 = 240

Use this method to answer the questions below.

12 x 5 =

(which would become 6 x 10)

18 x 5 =

24 x 5 =

68 x 5 =

88 x 5 =

164 x 5 =

Further learning:

Apply this method to multiplying by 50.

14 x 50 =

(would become 7 x 100)

28 x 50 =

44 x 50 =

82 x 50 =

122 x 50 =

Short multiplication (HTO x O)

https://www.youtube.com/watch?v=p2Fi43jZOqI

The video above explains the method for short multiplication using three digit numbers multiplied by one digit e.g.

387 x 6

Answers the questions on the sheet below.

Remember to:

1. Always start with the ones (units) column
2. Use your knowledge of multiplication facts to help with the larger numbers e.g. 80 x 6 =

(8 x 6 is 48 so 80 x 6 is 480)

3. Check your number is the right size – round the 3 digit number to the nearest hundred to get an approximate answer.

Short multiplication (ThHTO x O)

Use the method introduced yesterday to complete the questions on the sheet below; multiplying 4 digit numbers by 1 digit.

Remember to set out the questions like the ones from yesterday. Make sure the numbers are in the correct columns.

6586

x 6

Other tasks

Crack the code

Use the sheet below to recap what you know about multiples. Square and cube numbers.

Multiples, Square Numbers and Cube Numbers

Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.

Each answer to the questions below will be a number. Match the number to a letter in the grid below. If your answers are correct, your letters will spell out a phrase.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
14	15	16	17	18	19	20	21	22	23	24	25	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Which number?	Notes/Number	Letter
This number is a multiple of seven and two and is a factor of 28.		
This number is a square number, a multiple of three and one more than a cube number.		
This number is a prime number and a factor of 36.		
When this number is squared, the answer is the largest square number in the list above.		
This prime number is > 19 and < 29.		
This number is a multiple of five and three.		
This multiple of nine is in between two prime numbers.		
This number is the difference between 5^2 and 4^2.		

Missing numbers

Find the missing numbers in these calculations;

1. $\begin{array}{r} \_06 \\ \times \quad 2 \\ \hline 412 \end{array}$

2. $\begin{array}{r} 2\_0 \\ \times \quad 4 \\ \hline 1040 \end{array}$

3. $\begin{array}{r} \_95 \\ \times \quad 4 \\ \hline 1180 \end{array}$

4. $\begin{array}{r} 20\_ \\ \times \quad 4 \\ \hline 836 \end{array}$

Trebling

Can you replace the letters with numbers in the calculation below? All the letters only correspond to one number. There is only one solution. Find the answer at the bottom of this menu!

$$\begin{array}{r} 1\ a\ b\ c\ d\ e \\ \times \qquad\qquad 3 \\ \hline a\ b\ c\ d\ e\ 1 \end{array}$$

Word problems

Use the short multiplication method to answer these questions.

1. Mr Hitchins wants to replace the school's footballs. Each football costs £9 and he wants to order 134. How much will they cost?

2. Emma buys a jar full of 126 sweets. She wants to get enough sweets to last her all year, so she buys another 4 jars. How many sweets are there in all 5 jars?

3. William watches 4 TV programmes every day. How many programmes does he watch over 365 days?

Interactive Games

Factors and multiples: https://www.topmarks.co.uk/maths-games/multiples-and-factors

Factor trees: https://www.transum.org/Maths/Activity/Prime/Tree_Puzzles.asp

Halves, doubles and number facts: https://www.topmarks.co.uk/maths-games/hit-the-button

Factors and Multiples Game

Rules

- You will need 2 different coloured pencils and the 100 square below.
- Player 1 colours in a number less than 50.
- Player 2 has to colour in a number which is a factor or a multiple of the first number.
- Player 1 now has to colour a number which is a factor or a multiple of the number player 2 coloured in.
- Play continues until one player cannot go!

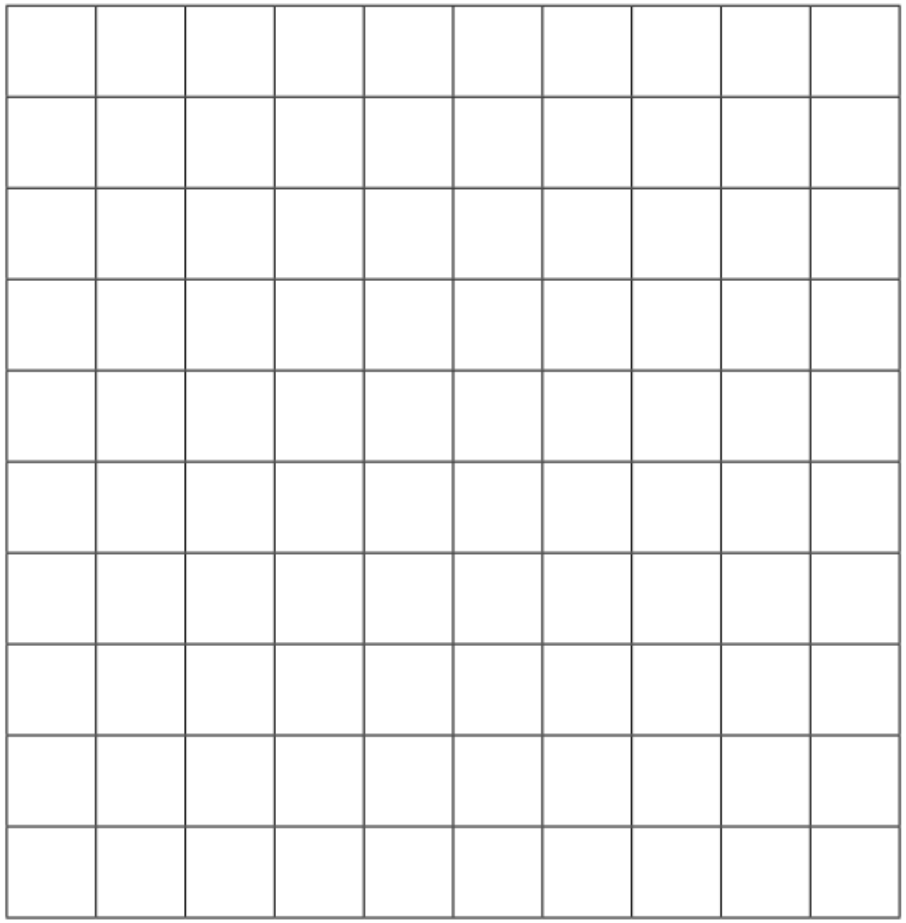
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Prime Number Maze

Follow the Prime Number to bring the monkey to the bananas.

40	2	32	4	19	33	57	79	24	48
77	5	83	11	73	23	5	9	17	54
2	23	29	44	87	16	31	71	6	80
57	97	84	31	94	36	51	37	8	13
14	29	65	29	34	59	43	11	76	21
34	53	68	13	85	29	16	33	42	2
13	50	92	41	49	7	97	30	73	53
29	68	25	3	66	43	17	87	11	86
25	75	38	41	23	79	89	72	5	44
58	54	27	67	83	47	60	64	90	27

Make your own prime number maze



Multiples, Square Numbers and Cube Numbers

Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.

Each answer to the questions below will be a number. Match the number to a letter in the grid below. If your answers are correct, your letters will spell out a phrase.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
14	15	16	17	18	19	20	21	22	23	24	25	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Which number?	Notes/Number	Letter
This number is a multiple of seven and two and is a factor of 28.		
This number is a square number, a multiple of three and one more than a cube number.		
This number is a prime number and a factor of 36.		
When this number is squared, the answer is the largest square number in the list above.		
This prime number is > 19 and < 29.		
This number is a multiple of five and three.		
This multiple of nine is in between two prime numbers.		
This number is the difference between 5^2 and 6^2.		

Short Multiplication

275 x 6	643 x 6	867 x 5	891 x 4
849 x 5	585 x 5	744 x 4	263 x 5
588 x 4	166 x 5	975 x 6	798 x 6

Short Multiplication (2)

1. 6586 x 5 =
2. 6682 x 9 =
3. 9870 x 4 =
4. 1476 x 4 =
5. 4217 x 7 =
6. 1815 x 6 =
7. 8292 x 8 =
8. 8940 x 8 =
9. 5512 x 5 =
10. 9706 x 8 =

ENGLISH – Oliver Twist by Charles Dickens

Sequence 1

Charles Dickens

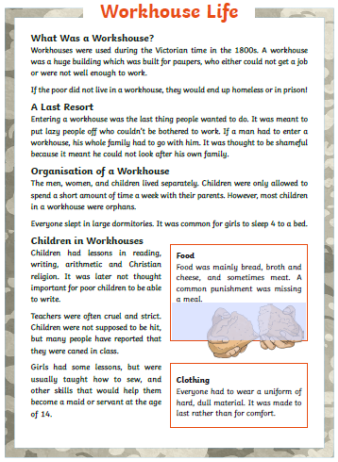
Charles Dickens is the author of the book we will be focusing on over the next few weeks. Find out as much as you can about him and complete the fact file below. Include details about his early life and the titles of other books he has written. In what period of History did he write his books? What where the main themes of his books?

The historical context of Oliver Twist

Oliver Twist was written in the Victorian Era. In that time here was a big difference between the lives of the rich and poor. Look carefully at the images below and write about the differences you can see. What else can you find out about how life was like for children in the period in History?

Workhouse comprehension task

Read the text about Victorian Workhouses and answer the questions as fully as you can.



Workhouse Life

What Was a Workshouse?

Workhouses were used during the Victorian time in the 1800s. A workhouse was a huge building which was built for paupers, who either could not get a job or were not well enough to work.

If the poor did not live in a workhouse, they would end up homeless or in prison!

A Last Resort

Entering a workhouse was the last thing people wanted to do. It was meant to put lazy people off who couldn't be bothered to work. If a man had to enter a workhouse, his whole family had to go with him. It was thought to be shameful because it meant he could not look after his own family.

Organisation of a Workhouse

The men, women, and children lived separately. Children were only allowed to spend a short amount of time a week with their parents. However, most children in a workhouse were orphans.

Everyone slept in large dormitories. It was common for girls to sleep 4 to a bed.

Children in Workhouses

Children had lessons in reading, writing, arithmetic and Christian religion. It was later not thought important for poor children to be able to write.

Teachers were often cruel and strict. Children were not supposed to be hit, but many people have reported that they were caned in class.

Girls had some lessons, but were usually taught how to sew, and other skills that would help them become a maid or servant at the age of 14.

Food

Food was mainly bread, broth and cheese, and sometimes meat. A common punishment was missing a meal.

Clothing

Everyone had to wear a uniform of hard, dull material. It was made to last rather than for comfort.

Description using prepositions

Here are a list of prepositions:

above, across, against, along, among, around, at, before, behind, below, beneath, beside, between, by, down, from, in, into, near, of, off, on, to, toward, under, upon, with and within

Use the image below of a Victorian street write some descriptive sentences that include at least one preposition.

e.g.

The moon glowed eerily behind the crooked branches.

Generating description from a film clip

Use the link below to watch the opening of the 'Oliver' film.

https://www.youtube.com/watch?v=NHRwmfSfl7A

Focus on the part when the boys are in the workhouse.

1. Write a list of nouns (objects/things) e.g **orphans**
2. Write a list of adjectives that describe the nouns e.g. **dirty, ragged orphans**
3. Choose some verbs that describe what is happening e.g **.waited**
4. Use adverbs to describe the verbs e.g. **waited patiently**

Put these together to create a sentence

Use this way of generating descriptive sentences to describe what is happening in the scene below:

Sequence 2	**Describing workhouse food**  This image show the type of food that adults and children would have been given in the Victorian workhouses. It is called gruel. It is like a thin porridge. Think of as many synonyms as you can that describe bad food e.g. inedible, stomach churning etc. Design a poster to 'advertise' gruel! Make it sound disgusting!	**Letter from a workhouse child** Below you will find a timetable for a typical day of a child in a workhouse. Use this and what else you have learnt about workhouses to write a letter from a workhouse child. Think about how to include the following: Food, clothes, education, rules, punishment, family, where the child sleeps. Imagine you are a orphan writing to a distant relative, asking them to take you out of the workhouse and look after you. What would you say to persuade them?	**Writing the first part of a story opening** Re-watch the opening of the story from the beginning to 1m 26s when Oliver asks for more gruel https://www.youtube.com/watch?v=NHRwmfSfl7A Write the opening of the story to this point. Remember to include the description of the setting and the atmosphere, the feelings and actions of the characters. You should write the story in third person and past tense. .	**Editing your writing** Read the story opening you wrote yesterday. Check and correct the following; • Capital letters/full stops • Speech punctuation • Spelling you are unsure of Choose two of the following in your writing and improve your choices: • Two verbs • Two adjectives • Two adverbs Do your editing in a green pen or pencil if you can.	**Writing the second part of the story opening** Re-watch the clip from 1m 26s (when Oliver is being chased) to the last phrase' The boy will pay'(2m 13s) Write the second part of the opening. Remember to include some exciting verbs and adverbs to describe the reactions of the characters and adjectives to describe the delicious banquet the men are eating! 

Other tasks

Select and apply suffixes -tion or -ssion.

Select the correct suffixes from above to complete these words:

Tui-
Admi-
Emi-
Omi-
Posse-
Vibra-
Discu-
mi-
pa-
se-

Choose five and write a sentence for each one

Prepositional openers

Prepositional openers give us more information about where or when whatever is happening in the sentence.
For example;
Under the grey clouds, the young children sat shivering.
Complete the prepositional opening sheet below, copying the sentences into your book and underlining the prepositional opener.
Remember to add the comma

Select and apply suffixes: -tion –cian or -sion.

Select the correct suffixes from above to complete these words:

Physi-
Opti-
Musi-
Atten-
Dieti-
Comprehend-
Exten-
Magi-
Inten-
Beauti-

Choose five and write a sentence for each one

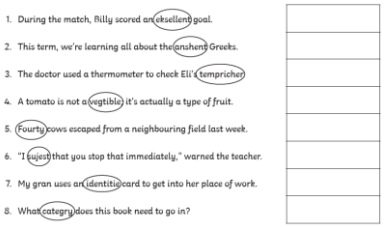
Up-leveling sentences

Add interesting verbs, adverbs, adjectives and prepositional phrases to improve this sentence. Write five different versions.

The girl looked through the keyhole.

Correct the spelling

Use the sheet provided below and correct the spellings in the sentences.

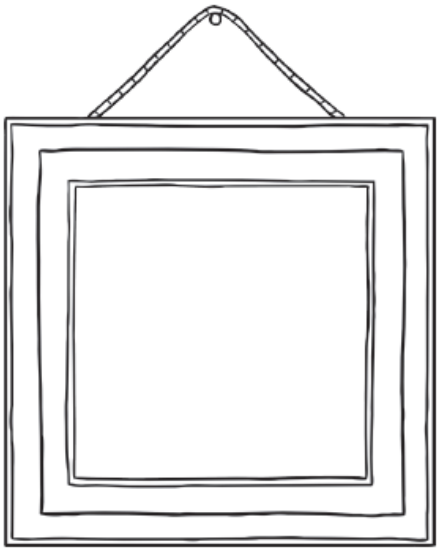


Write the sentences out in to your book with the correct spellings included.

Answer to 'Trebling' maths task:

$$\begin{array}{r} 142857 \\ \times \quad\quad 3 \\ \hline 428571 \end{array}$$

Charles Dickens Fact file



Full Name:

Date of Birth:

Place of Birth:

Famous for:

About Charles Dickens

Rich Victorian Children	Poor Victorian Children
 	 

Write about the differences you can see:

_____

_____

_____

_____

_____

_____

_____

_____

Workhouse Life

What Was a Workshouse?

Workhouses were used during the Victorian time in the 1800s. A workhouse was a huge building which was built for paupers, who either could not get a job or were not well enough to work.

If the poor did not live in a workhouse, they would end up homeless or in prison!

A Last Resort

Entering a workhouse was the last thing people wanted to do. It was meant to put lazy people off who couldn't be bothered to work. If a man had to enter a workhouse, his whole family had to go with him. It was thought to be shameful because it meant he could not look after his own family.

Organisation of a Workhouse

The men, women, and children lived separately. Children were only allowed to spend a short amount of time a week with their parents. However, most children in a workhouse were orphans.

Everyone slept in large dormitories. It was common for girls to sleep 4 to a bed.

Children in Workhouses

Children had lessons in reading, writing, arithmetic and Christian religion. It was later not thought important for poor children to be able to write.

Teachers were often cruel and strict. Children were not supposed to be hit, but many people have reported that they were caned in class.

Girls had some lessons, but were usually taught how to sew, and other skills that would help them become a maid or servant at the age of 14.

Food

Food was mainly bread, broth and cheese, and sometimes meat. A common punishment was missing a meal.

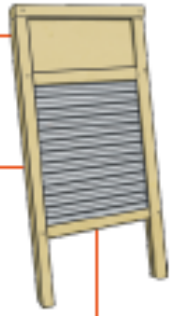
Clothing

Everyone had to wear a uniform of hard, dull material. It was made to last rather than for comfort.

Jobs in the Workhouse

Work in a workhouse was meant to be very hard.

Men	stone breaking grinding corn work in the fields chopping wood
Women	laundry cleaning scrubbing walls and floors spinning weaving



Illness

Ringworm was a common illness to have. It was an infectious disease of the skin on the head. Children had to have their head shaved and have iodine lotion rubbed into their head. It was very embarrassing.

Most people, who entered a workhouse, never left.

They were closed in 1930. The buildings were then used for hospitals and care homes.

Useful words

pauper: a very poor person
orphan: a child whose parents had both died.
dormitories: large bedrooms with many beds.
broth: a thin, watery sort of soup.
caned: being hit with a stick or ruler.
arithmetic: maths and number.

Questions

1. What was a workhouse?

2. What would happen to a poor person who did not go into a workhouse?

3. Why was it shameful for a man with a family to have to live in a workhouse?

4. What were the main foods in the workhouse meals?

5. Do you think people wanted to wear the workhouse uniforms? Explain your reasons.

6. Name two subjects the children were taught in a workhouse school.

7. How do we know that teachers were often cruel?

8. Why did girls not have all the same lessons as boys?

9. Which of the jobs do you think sounds the most difficult and why?

10. Why would having ringworm be embarrassing?

11. Give two reasons why you would not want to live in a workhouse.

Victorian Street image

'Oliver film' clip image

Day in the life of a workhouse child

6 a.m.	Wake up. Make the bed. Say prayers. Clean shoes. Wash body.
7 a.m.	Boys complete gym exercises.
7:45 a.m.	Say prayers. Eat breakfast.
9 a.m.	Complete historical reading.
10 a.m.	Learn arithmetic.
11 a.m.	Learn grammar and dictation.
12 a.m.	Eat dinner.
2 p.m.	Boys: Learn to write. Girls: Complete needlework and knitting.
3 p.m.	Boys complete reading and explanation.
4 p.m.	Boys learn geography using maps.
6 p.m.	Eat supper.
8 p.m.	Say prayers. Go to bed.

Correct the spelling

1. During the match, Billy scored an eksellent goal.
2. This term, we're learning all about the anshent Greeks.
3. The doctor used a thermometer to check Eli's tempricher.
4. A tomato is not a vegtible; it's actually a type of fruit.
5. Fourty cows escaped from a neighbouring field last week.
6. "I sujest that you stop that immediately," warned the teacher.
7. My gran uses an identitie card to get into her place of work.
8. What categry does this book need to go in?

Prepositional Openers

Add a prepositional phrase from below to each of the sentences. Remember to add the comma too.

Through the forest	In the tree branches
After the race	In summer
Under the waves	Underneath the stairs
Through the blue sky	Due to the heavy snow

1. _____ mum stored the vacuum cleaner.
2. _____ Jessie got a gold medal for coming first.
3. _____ school was closed for the day.
4. _____ planes flew taking passengers on holiday.
5. _____a school of dolphins swam.
6. _____ the elephants marched like soldiers.
7. _____ we are going on holiday.
8. _____ the birds were singing merrily.