



Cotsford
Primary School

Home learning

Year 4

Spring 2

Year 4 Home Learning

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Maths - Lesson 1

Word Search 4 Times Table

Answer the calculations below and find the answers in the word search:

$4 \times 3 =$

$4 \times 4 =$

$4 \times 11 =$

$4 \times 8 =$

$4 \times 10 =$

$4 \times 2 =$

f	t	h	i	r	t	y	t	w	o
t	o	h	f	o	r	t	y	w	o
w	t	r	s	i	x	e	e	t	e
e	w	r	t	e	s	e	s	h	i
i	s	e	l	y	n	l	h	i	g
v	k	i	e	t	f	e	e	r	h
e	a	e	y	e	a	o	t	t	t
f	o	r	t	e	o	o	u	y	e
o	n	n	e	e	t	h	g	r	e
s	i	x	t	e	e	n	b	n	n

Lesson 2

Word Search 3 Times Table

Answer the calculations below and find the answers in the word search:

$3 \times 3 =$

$3 \times 4 =$

$3 \times 10 =$

$3 \times 6 =$

$3 \times 2 =$

$3 \times 7 =$

e	t	h	i	r	t	y	n	e	l
t	n	h	x	t	t	e	r	t	o
w	i	u	e	d	b	i	w	n	e
e	n	r	w	e	s	e	e	o	s
l	e	e	l	p	n	e	h	u	i
v	k	e	e	t	t	i	e	r	x
e	a	e	y	h	a	u	t	n	e
m	q	a	g	e	o	o	k	i	e
o	n	i	e	e	t	h	g	n	e
e	e	d	j	p	z	o	b	n	n

Lesson 3

Division by 3 Race

Take the number in the circle below and divide the numbers outside of the track by it. Write your answers as you go and see how long it takes you to finish the race!

Divide by

3

Start

Finish!

18	3			21	6
33					12
30					9
36					24
27					15
24					27
15					36
12					30
9	6	21	3	18	33

Lesson 4

Division by 4 Race

Take the number in the circle below and divide the numbers outside of the track by it. Write your answers as you go and see how long it takes you to finish the race!

16 8 **Finish!** **Start** 24 8

12 16

20 4

36 40

32 28

44 24

4 44

28 32

32 40 48 20 12 36

Divide by
4

Lesson 5

Table at the Double

Find the 2x table by doubling each number. Find the 4x table by doubling the 2x table. Find the 8 times table by doubling the 4x table. Can you complete the whole sheet?

Number	x2	x4	x8
2	4	8	16
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
15			
20			
50			
100			

Lesson 6

Multiplication Triangles Sheet 1

Fill in the blanks in these multiplication triangles.

1

$$\begin{array}{c} 80 \\ + \quad + \\ 8 \quad \times \quad \square \end{array}$$

2

$$\begin{array}{c} \square \\ + \quad + \\ 4 \quad \times \quad 8 \end{array}$$

3

$$\begin{array}{c} 12 \\ + \quad + \\ \square \quad \times \quad 3 \end{array}$$

4

$$\begin{array}{c} 6 \\ + \quad + \\ 3 \quad \times \quad \square \end{array}$$

5

$$\begin{array}{c} \square \\ + \quad + \\ 8 \quad \times \quad 2 \end{array}$$

6

$$\begin{array}{c} 3 \\ + \quad + \\ \square \quad \times \quad 1 \end{array}$$

7

$$\begin{array}{c} 20 \\ + \quad + \\ 4 \quad \times \quad \square \end{array}$$

8

$$\begin{array}{c} \square \\ + \quad + \\ 4 \quad \times \quad 4 \end{array}$$

9

$$\begin{array}{c} 24 \\ + \quad + \\ \square \quad \times \quad 3 \end{array}$$

10

$$\begin{array}{c} 96 \\ + \quad + \\ 8 \quad \times \quad \square \end{array}$$

11

$$\begin{array}{c} \square \\ + \quad + \\ 4 \quad \times \quad 7 \end{array}$$

12

$$\begin{array}{c} 88 \\ + \quad + \\ \square \quad \times \quad 11 \end{array}$$

Lesson 7

Multiplication Triangles Sheet 2

Fill in the blanks in these multiplication triangles.

12

$$\begin{array}{c} 24 \\ + \\ 8 \times \square \end{array}$$

13

$$\begin{array}{c} \square \\ + \\ 4 \times 9 \end{array}$$

14

$$\begin{array}{c} 15 \\ + \\ \square \times 5 \end{array}$$

15

$$\begin{array}{c} 21 \\ + \\ 3 \times \square \end{array}$$

16

$$\begin{array}{c} \square \\ + \\ 8 \times 9 \end{array}$$

17

$$\begin{array}{c} 40 \\ + \\ \square \times 5 \end{array}$$

18

$$\begin{array}{c} 20 \\ + \\ 4 \times \square \end{array}$$

19

$$\begin{array}{c} \square \\ + \\ 4 \times 6 \end{array}$$

20

$$\begin{array}{c} 36 \\ + \\ \square \times 12 \end{array}$$

21

$$\begin{array}{c} 12 \\ + \\ 3 \times \square \end{array}$$

22

$$\begin{array}{c} \square \\ + \\ 8 \times 8 \end{array}$$

23

$$\begin{array}{c} 56 \\ + \\ \square \times 7 \end{array}$$

Lesson 8

Mental Multiplication

Try using these mental calculation strategies to see how many of these calculations you can perform mentally.

x4

Double the number and then double it again.

$$\begin{aligned} \text{e.g. } 13 \times 4 &= 52 \\ (13 \times 2 &= 26, \\ 26 \times 2 &= 52) \end{aligned}$$

x5

Times the number by 10 and then halve it.

$$\begin{aligned} \text{e.g. } 14 \times 5 &= 70 \\ (14 \times 10 &= 140, \\ 140 \div 2 &= 70) \end{aligned}$$

x8

Double the number, double it again and then double it a third time.

$$\begin{aligned} \text{e.g. } 13 \times 8 &= 104 \\ (13 \times 2 &= 26, 26 \times 2 = 52, \\ 52 \times 2 &= 104) \end{aligned}$$

x9

Multiply the number by 10 and then subtract the number.

$$\begin{aligned} \text{e.g. } 15 \times 9 &= 135 \\ (15 \times 10 &= 150, \\ 150 - 15 &= 135) \end{aligned}$$

x11

Multiply the number by 10 and then add the number.

$$\begin{aligned} \text{e.g. } 7 \times 11 &= 77 \\ (7 \times 10 &= 70, \\ 7 + 7 &= 77) \end{aligned}$$

x15

Multiply the number by 10 and then add half of the total.

$$\begin{aligned} \text{e.g. } 12 \times 15 &= 180 \\ (12 \times 10 &= 120, \\ 120 \div 2 &= 60, 60 + 120 = 180) \end{aligned}$$

- 1 $14 \times 4 =$
- 2 $13 \times 5 =$
- 3 $6 \times 8 =$
- 4 $8 \times 9 =$
- 5 $9 \times 11 =$
- 6 $6 \times 15 =$
- 7 $15 \times 4 =$
- 8 $9 \times 5 =$
- 9 $12 \times 8 =$
- 10 $13 \times 9 =$
- 11 $10 \times 11 =$

- 12 $12 \times 15 =$
- 13 $15 \times 4 =$
- 14 $20 \times 5 =$
- 15 $5 \times 8 =$
- 16 $12 \times 9 =$
- 17 $13 \times 11 =$
- 18 $8 \times 15 =$
- 19 $4 \times 8 =$
- 20 $9 \times 15 =$
- 21 $11 \times 15 =$
- 22 $14 \times 6 =$

Lesson 9

Multiplying 2-digit Numbers by 1-digit Numbers Using the Grid Method

1

x	10	3
9		

5

x	70	1
5		

2

x	50	6
5		

4

x	20	3
3		

3

x	80	9
9		

6

x	60	3
7		

7

x	70	5
7		

8

x	10	3
5		

9

x	20	8
9		

10

x	50	3
8		

Lesson 10

New Bus Stop Method Formal Division of 2-digit Numbers

LO: I can use a formal method of division.

1 $69 \div 3 =$

2 $88 \div 4 =$

3 $90 \div 5 =$

4 $76 \div 4 =$

5 $72 \div 3 =$

6 $70 \div 5 =$

7 $24 \div 2 =$

8 $56 \div 4 =$

9 $36 \div 3 =$

10 $65 \div 5 =$

11 $96 \div 4 =$

12 $90 \div 6 =$

13 $96 \div 8 =$

14 $96 \div 6 =$

15 $88 \div 8 =$

16 $80 \div 4 =$

17 $95 \div 5 =$

18 $92 \div 4 =$

19 $46 \div 2 =$

20 $78 \div 6 =$

21 $92 \div 4 =$

22 $84 \div 4 =$

23 $72 \div 3 =$

24 $70 \div 7 =$

25 $88 \div 4 =$

26 $80 \div 5 =$

27 $98 \div 7 =$

28 $66 \div 3 =$

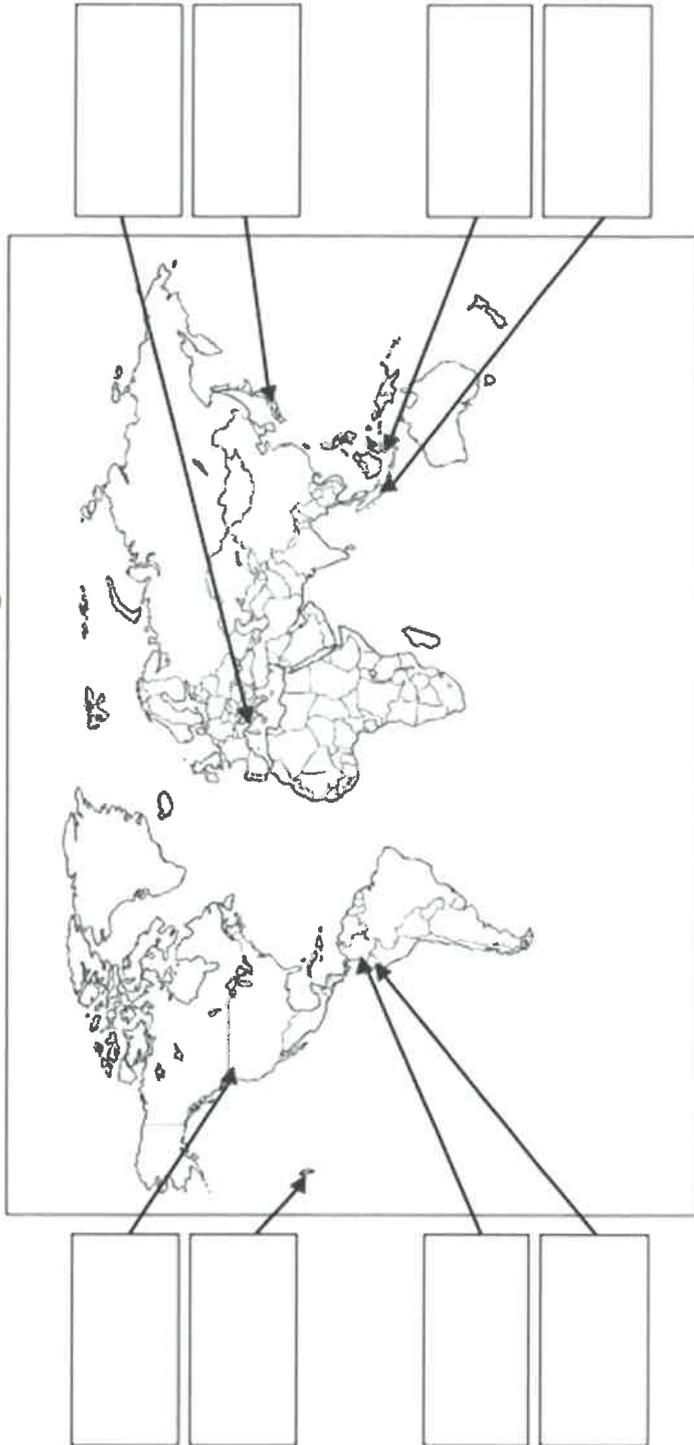
29 $84 \div 4 =$

30 $91 \div 7 =$

English/Topic – Lesson 1

Research the location of these volcanoes around the world and complete the labels on the map.

Famous Volcanoes of the World



Krabatoa	Mount St. Helens	Cotopaxi	Mount Vesuvius
Mount Ruiz	Mount Tambora	Mauna Loa	Mount Fuji

Lesson 2

Read the information about volcanoes around the world and answer the questions below.

Mount Hood

Mount Hood can be located in the Mount Hood National Forest, Oregon, USA. It is found in the Cascade mountain range and is a dormant volcano which had its last significant eruption in 1865. Mount Hood has a cone shape because it is a stratovolcano made up of hardened layers of ash and lava. Its height isn't that great compared to other volcanoes – the highest on earth is well over 6000 m whereas Hood is 3426 m.

During the warmer months, tourists come here to hike, bike, climb, camp and fish. During the colder winter months it becomes a skiing haven.

Mount St Helens

Mount St Helens is an active volcano which is located in the Cascade Mountain Range, Washington, USA. This mountain range contains many dormant and active volcanoes because it is part of the Pacific Ring Of Fire. The base of Mount St Helens is 6 miles wide. A tragic eruption took place here on May 18th 1980, where 57 people were killed, or declared missing, and many roads and homes were destroyed. The eruption was so powerful that it caused an avalanche resulting in the top 400 m of the volcano disappearing. Since then, the volcano was actually erupting from September 2004 to January 2008, creating a second lava dome.

Today the volcano is closely monitored by geologists who can predict whether another eruption may occur in the near future.

Mount Kilauea

This is a shield volcano which can be found in Hawaii. It is one of the largest active volcanoes in the world and has erupted over 60 times. It is 1247 m above sea level and the summit is made up of a lava lake which is believed to be the home of the Hawaiian volcano goddess, Pele.

Mount Kilauea has been erupting continuously since 1983! Most of the lava enters the sea but has been known to flow in other directions, destroying many homes.

Popocatepetl

This volcano is nicknamed 'El Popo'. After 50 years of being a dormant volcano, it burst back to life in 1994.

In April 2012, rock fragments, ash and water vapour were thrown up high in the air creating an ash cloud. This cloud was launched 2 km into the sky and caused huge transportation problems. A similar situation occurred again in both 2013 and 2014.

Popocatepetl is found in Mexico and is 5426 m tall. The name means 'Smoking Mountain' in Aztec.

Mount Vesuvius

Located near Naples, Italy, this volcano has a very famous history. It is 30 miles wide at its base and is estimated to be about 17,000 years old. In the last 2000 years it has erupted a total of 50 times, with the last eruption taking place in 1944 during World War 2. It has two cones which are 3 miles apart and is known as a stratovolcano because of its cone like shape.

The most famous eruption took place in 79AD, when Vesuvius erupted for an entire day, killing thousands of people and burying the nearby city of Pompeii. Archaeologists returned to Pompeii to discover that bodies and other items had been well preserved by the hardened ash.

Visitors can climb the volcano to almost reach the summit where they can see ash being released from the crater.

Krakatoa

Krakatoa sits on the Ring of Fire and is located in Indonesia. The 1883 eruption generated the loudest ever sound in history and could even be heard in Australia (nearly 2000 miles away). Thousands of people died and entire villages were decimated mostly due to the tsunami which followed the powerful explosion.

Mount Fuji

This is the highest mountain in Japan, standing tall at 3776 m, and is also an active stratovolcano. It last erupted in 1707 and many people believe it to be a very sacred place.

Comprehension Questions

1. How many metres above sea level is Mount Kilauea?

2. What does Popocatepetl mean in Aztec?

3. Name two volcanoes which can be found in the Cascade Mountain Range.

4. Which record was made during the eruption of Krakatoa in 1883?

5. What kind of a volcano is Mount Vesuvius?

6. Compare Mount Hood and Mount Fuji.

Challenge Questions

1. Which of these volcanoes is the tallest?

(Tip: you will need to do some of your own research to answer this question)

2. Find out more about the Ring of Fire and write down what you have discovered below.

Lesson 3

Read the following information about hurricanes. Then, answer the questions below.

Hurricanes are huge, spiralling storms which are formed over oceans and travel for miles, often reaching land and causing flooding, damage and loss of life.

The storms are formed when heat and energy is gathered from warm, ocean water, usually close to the equator. Cool air is forced upwards from the ocean and as the wind begins to spiral, it pushes water into the centre of the storm called the eye. When the storm reaches land, this water causes devastating flooding.

A storm is classified as a hurricane when its winds are spinning at 74 mph but they can reach speeds of 200 mph. Hurricanes can be up to 600 miles across and last over one week. A hurricane can travel at 10-20 mph over the ocean. Hurricanes are given a name which alternates between male and female names.

Now answer these questions:

1. How would you describe a hurricane?

2. What are the effects of a hurricane?

3. Where do hurricanes form?

4. How wide can hurricanes be?

5. What is the centre of a hurricane called?

6. What speed can the winds in a hurricane reach?

Lesson 4

Read the following facts about hurricanes. For each set of facts, write the information in your own words.

You could also challenge yourself by doing your own research into hurricanes and adding this to your sentences.

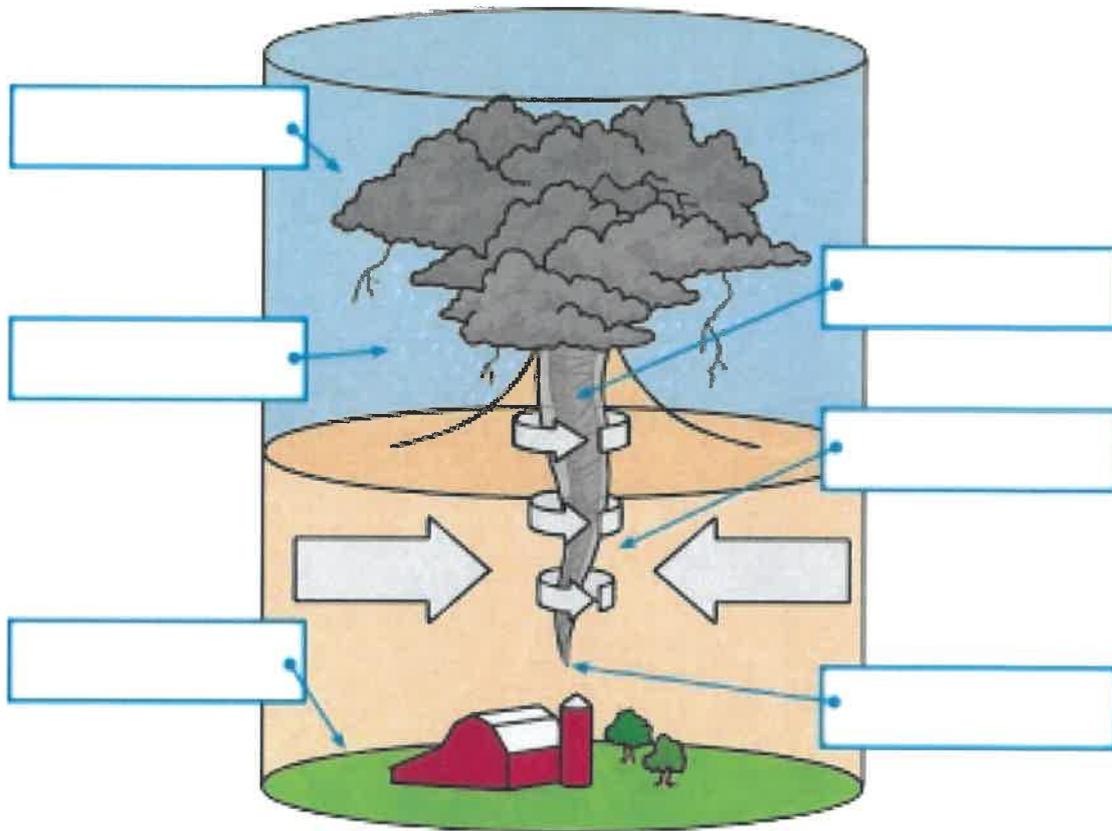
- huge, spiralling storms
- formed over oceans
- travel for miles
- can cause flooding, damage to buildings and loss of life

- usually form close to the equator
- heat + energy from warm ocean water forces cool air upwards = hurricane
- wind begins to spiral and push water into the centre of the storm = eye
- storm reaches land - the water causes devastating flooding

- hurricane winds = 74+ mph
- winds can reach 200 mph
- up to 600 miles wide and last over one week
- travel 10-20 mph over the ocean
- given a name which alternates between male and female names

Lesson 5

Label the following diagram based on your own research of a tornado.



eye of the storm	upward current	warm air
cold air	rain	ground level

Use the word bank to fill in the missing gaps and to explain what a tornado is and how it occurs.

Word bank

column	upwards	thunderstorm	cold, dry air	warm, moist air
--------	---------	--------------	---------------	-----------------

A tornado is a violent, rotating _____ of air between a _____ and the ground. Tornadoes occur when _____ blows over _____. The warm air spins _____ forming a tornado.

Lesson 6

Use the word bank to write a caption for each picture. Remember to write brief captions explaining to the reader what is happening in each picture

Word Bank Try to use at least two of these words per caption.

absolute carnage power crashing destruction fear people leaving sudden severe













Lesson 7

Tornado Alley Activity Sheet

How do tornadoes form?

Fill in the blanks, using the word box below.

Tornado Alley in the United States is a region where warm, moist air flows north from the _____ and crashes into cold air pushing south from _____. When they meet, violent occur and these are known as _____. As _____, moist air flows into the storm it is pushed up and then _____ by upper level winds. As this _____ column of air gathers force, a _____ is born that can last between _____ and an hour.

thunderstorms	Gulf of Mexico	warm
rotating	twisted	super cells
20 seconds	tornado	Canada

Lesson 8 – Plan and write a diary from the point of view of somebody who has survived a tornado.

Before the tornado - what was I doing?

Tornado warning! How did I hear it was coming?

Get to shelter! How did I prepare?

Tip box:

- Write it from the point of view of a survivor.
- Try to describe all the emotions they would experience.
- Try to put yourself in their shoes - what if it was your house?



What happened when it hit?

Devastation - what did I see when I left the shelter?

The future - what will I do now?

Lesson 9 – Research how a tornado forms and see if you can recreate each stage by completing the storyboard. Write a short description of what is happening underneath each box.

Lesson 10 – Look at the photograph and add your thoughts about what has happened to each box. Remember to use

each question word as a starting point for what you will write.

Tornado - **What Has Happened Here?**

What?	When?



Where?	Why?