



# ORLEANS PRIMARY SCHOOL



## Year 4 - Autumn 2 Curriculum Overview

### SCIENCE Electricity & Circuits

This unit builds on children's previous knowledge to be able to identify common appliances that run on electricity. We will progress to constructing a simple series electrical circuit, in addition to identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. We will explore how switches work and why they are useful through an electrical circuit game and write a method for an enquiry to investigate which materials are good electrical conductors and good electrical insulators. We will investigate bulb brightness by posing testable questions about circuits and investigating how the number of bulbs in a series circuit affects their brightness. To finish, children will explain how to be safe around electricity.



**FRENCH** In this unit pupils learn how to describe themselves physically and personally (building on personality trait vocabulary) and learn how to use the first person singular pronoun with avoir and être.



### D.T Structures - Pavillions

The children will have the opportunity to produce a range of free-standing frame structures of different shapes and sizes. The main objective is to design a pavilion that is strong, stable and aesthetically pleasing. They will need to select appropriate materials and construction techniques to create a stable, free-standing frame structure.



### HISTORY Children Through Time

#### How have children's lives changed?

We will look at sources then make observations and deductions which suggest how children's lives have changes over time. This includes a look at childhood jobs, diseases and leisure time / activities. Children will be introduced to Lord Shaftsbury and how he championed a change for children.



### PSHE Health & Wellbeing

Children identify what makes them feel calm and learn some relaxation techniques. We learn to celebrating mistakes by developing a growth mindset and learning that mistakes are useful. They will learn to identify their own strengths and begin to see how they can positively affect others and then identify things that are important to them and learn that they can take action to influence their own happiness. Finally, they will learn that it is normal to experience a range of emotions, and identifying emotions people may feel in different situations.

### COMPUTING

**Collaborative Learning**  
We will be using Google documents collaboratively. The main objective will be to understand the need to be thoughtful when working on a collaborative document.

**RE** Investigating worldviews

Key Question:  
How do people around the world celebrate Christmas?



### MUSIC

**Pitch and sing:**  
children will be using tuned instruments to consolidate their treble clef pitch notation, singing and playing Christmas songs.



### Key Instant Recall Facts

To help develop children's fluency in mathematics, we ask them to learn Key Instant Recall Facts (KIRFs) each half term. This term's KIRF is:

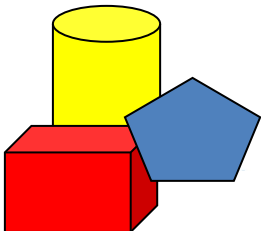
- I know multiplication and division facts for the 6x table.

Please refer to the KIRF letter and activities on Google Classroom for more information and activities to support learning.

**Gymnastics (4H) & Basketball (both classes)** - In Gymnastics, children will focus on learning a wider range of travelling actions and include the use of pathways. They develop more advanced actions such as inverted movements and explore ways to include apparatus. In Basketball, we will be developing competencies in key skills and principles such as defending, attacking, throwing, catching and dribbling. P.E days are on **Tuesday and Friday**. **4B class with continue with swimming lessons on Tuesday afternoon.**

**P.E.**





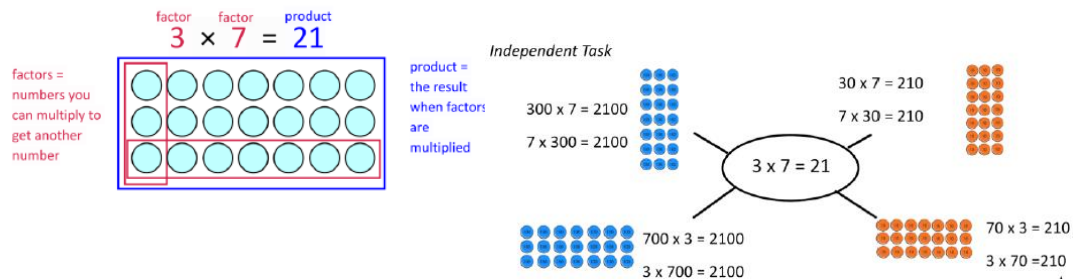
# ORLEANS PRIMARY SCHOOL



## MATHS

### Multiplication & Division

- Use place value, known facts and derived facts to multiply mentally

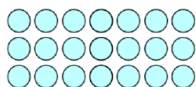


- Use place value, known facts and derived facts to divide mentally

$$3 \times 7$$

$$21 \div 3$$

If I know  $42 \div 7 = 6$ , what derived division facts can I find?

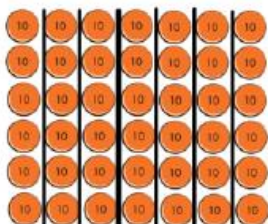


? What's the same? What's different? Why?



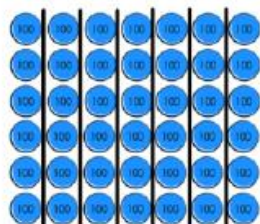
$$420 \div 7 =$$

$$7 \times \square = 420$$



$$4200 \div 7 =$$

$$7 \times \square = 4200$$



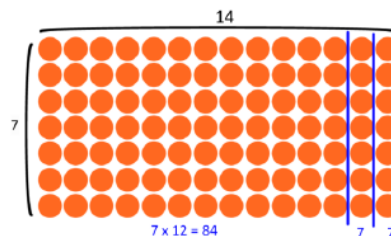
- Calculate multiplication facts using the distributive law

Show how the array could represent calculating  $7 \times 12$ , and then adding on seven twice, to reach the product of  $7 \times 14$ :

$$7 \times 12 = 84$$

$$84 + 7 = 91$$

$$91 + 7 = 98$$



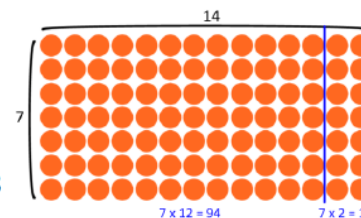
Discuss how instead of using repeated addition to add on from 84, the array can be split into fewer groups, using known facts.

Begin by explaining that the array could be split into two arrays, representing  $7 \times 12$  and  $7 \times 2$ .

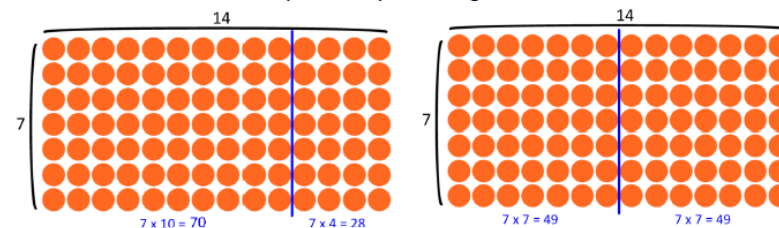
Complete the calculation:  $7 \times 12 = 84$

$$7 \times 2 = 14$$

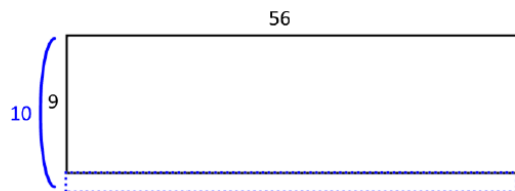
$$84 + 14 = 98$$



Discuss how else the array could split, using other known facts:

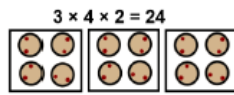
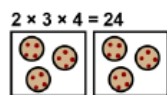


? Which way of calculating  $7 \times 14$  do you prefer? Why?



- I know  $56 \times 10 = 560$ , but that's ten lots of 56 – one lot too many. Therefore, I need to subtract 56 to find nine lots of 56.  $560 - 56 = 504$ . So,  $9 \times 56 = 504$ .

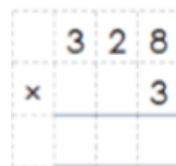
## Multiplying three 1-digit numbers



Let's Explore

There are six possible orders to find the product of 2, 3 and 4. Can you represent them all using an array?

"I have shown the equation  $3 \times 4 \times 2$ . I can see three groups of four, two times."



7 0 9

$\times 3$

Find the missing numbers.

$\square 1 \square$

$\times \quad \quad \quad 3$   
 $\square \square \square \square 2$

## Short multiplication

$$273 \times 3 = \square$$

Estimate: 900

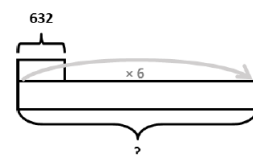
On a place value chart:



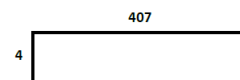
Using short multiplication:

$$\begin{array}{r} 273 \\ \times 3 \\ \hline \end{array}$$

On Friday, 632 people visit Niagara Falls in the morning. On Saturday morning, six times as many people visit. How many visited on Saturday morning?

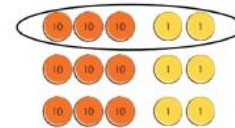


Keyrings are delivered to the Niagara Falls souvenir stand in packs of 4. The stand orders 407 boxes. How many keyrings have they ordered?



## Mental division strategies

$$96 \div 3 = 32$$



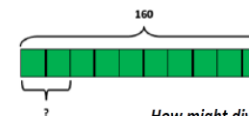
### Distributive Law and known facts

Model solving the problem using known facts.

- I know that three multiplied by three is equal to nine, therefore three multiplied by 30 is equal to 90. This means that 90 divided by three is equal to 30. 90 divided into three groups is 30.
- I know that six divided by three is two. Six divided into three groups is two.
- 96 divided by three is equal to 32.

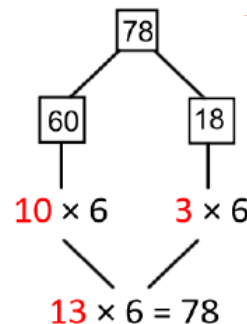
A new group of 160 tourists are taken on a guided tour of Niagara Falls. There are five tour guides and each gets an equal group. How many tourists are in each group?

$$160 \div 5 = \square$$

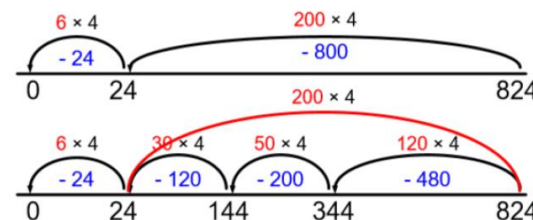


How might dividing by ten help you to mentally divide a number by five?

$$78 \div 6 =$$

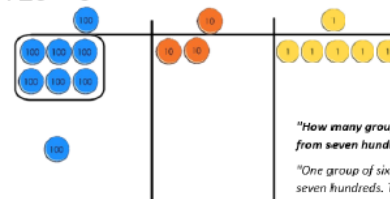


$$824 \div 4 =$$



## Short division

$$726 \div 6 =$$



For teacher reference only.

$$6 \overline{) 726}$$

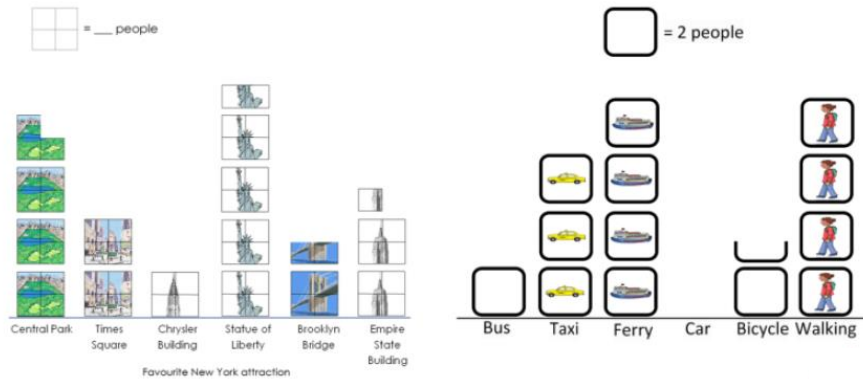
"How many groups of six hundreds can be made from seven hundreds?"  
"One group of six hundreds can be made from seven hundreds. There is one hundred remaining."

$$5 \overline{) 85} \quad 3 \overline{) 78}$$

$$\begin{array}{ll} 924 \div 6 & 896 \div 7 \\ 776 \div 4 & 894 \div 3 \end{array}$$

## Data

- Read, interpret and compare pictograms, bar charts and time graphs
- Construct pictograms, bar charts and time graphs



### Pictogram

### Tally

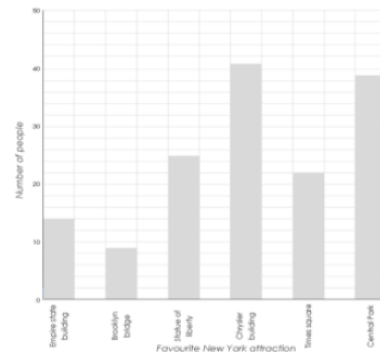
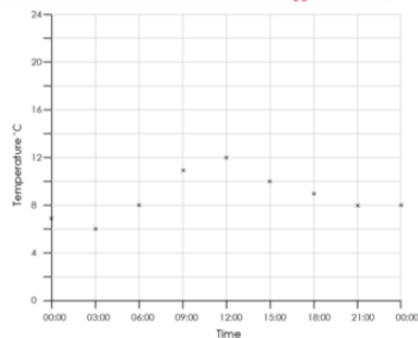
Pizza	
Hot dog	
Pretzel	
Doughnut	
Cheesecake	

### Frequency table

Favourite New York snack	Number of children
Pizza	36
Hot dog	16
Pretzel	8
Doughnut	14
Cheesecake	6
Total	80



### What's the same? What's different?



## ENGLISH

*We will continue with The Dreamgiver for 2-3 weeks before beginning this next unit.*

### Fiction: Short Novel (quest story)

**Focus Text: Ice Palace by Robert Swindells**

Ivan, the main character goes in search of his brother taken by the mysterious 'Starjik'. It is a moving and well written story with strong themes such as family love and bravery and much to explore in terms of character and dilemma.

### Overall aims of this teaching sequence

- To enjoy a story and discuss its meanings
- To explore narrative plot, settings, characters and draw inferences to aid understanding
- To broaden understanding of writers' use of language and build a varied vocabulary
- To write non-fiction texts based on fictional stimulus
- To write a non-chronological report
- To write a narrative ending

### Writing Outcomes

- Poetry (list poems, imagery)
- Instructions (rules for playing a game)
- Recount (note, written in role)
- Non-chronological report (information leaflet)
- Thought bubbles, notes (writing in role)
- Captions
- Narrative ending

