

St. Patrick's High School Keady

Mathematics Department

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### **Learning Intentions**

#### **YEAR 8**

Unit: Number

Stage: Whole Number Review

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At the end of this unit **all** pupils should be able to:

- Understand and use the concept of place value in whole numbers
- Read, write and order whole numbers of any size
- Round whole numbers within 10 000 to the nearest 10, 100 or 1000
- Add and subtract whole numbers of any size
- Know and use multiplication facts up to  $10 \times 10$  in solving problems, including associated division facts

At the end of this unit **most** pupils should be able to:

- State the largest and smallest possible original values of a number which has been rounded to the nearest 10, 100 or 1000
- Solve problems involving long multiplication
- Divide any whole number by an integer less than 10
- Check calculations by applying inverse operations

At the end of this unit **some** pupils should be able to:

- Use order of operation in numerical calculations, including the use of brackets

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### **Learning Intentions**

#### **YEAR 8**

Unit: Number

Stage: Decimals

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At the end of this unit **all** pupils should be able to:

- Understand place value up to 3 decimal places
- Compare and order decimals of any size
- Add and subtract decimals of any size
- Complete a simple sequence involving decimals
- Use knowledge of place value to multiply and divide decimals by 10, 100 or 1000
- Round a decimal to the nearest whole number

At the end of this unit **most** pupils should be able to:

- Multiply and divide any decimal by a whole number
- Round a number to given number of decimal places.

At the end of this unit **some** pupils should be able to:

- Multiply a decimal by another decimal

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### **Learning Intentions**

#### **YEAR 8**

Unit: Number

Stage: Types of Number

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At the end of this unit **all** pupils should be able to:

- List the multiples of a given whole number
- List all the factors of a given whole number
- Define a prime number and list the first 10 prime numbers
- Recall square numbers up to  $12 \times 12$

At the end of this unit **most** pupils should be able to:

- Work out the square root of a given square number
- Recall the cube of 2, 3, 4, 5 and 10

At the end of this unit **some** pupils should be able to:

- Calculate the HCF and LCM of two numbers from a list

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### **Learning Intentions**

#### **YEAR 8**

Unit: Number

Stage: Negative Numbers

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At the end of this unit **all** pupils should be able to:

- Draw an extended number line, showing both positive and negative numbers
- Use the number line to order a set numbers which include negative values
- Perform addition and subtraction calculations involving negative numbers (excluding directed numbers)

At the end of this unit **most** pupils should be able to:

- Multiply and divide positive and negative numbers

At the end of this unit **some** pupils should be able to:

- Perform addition and subtraction calculations involving negative numbers, including directed numbers

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### **Learning Intentions**

#### **YEAR 8**

Unit: Number

Stage: Fractions

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At the end of this unit **all** pupils should be able to:

- Use fraction notation to describe quantities
- Understand and use the equivalence of fractions
- Calculate the fraction of an amount, including money
- Add and subtract fractions with the same denominator
- Understand the relationship between common decimals, fractions and percentages

At the end of this unit **most** pupils should be able to:

- Write a fraction in its simplest form
- Add and subtract fractions with different denominators

At the end of this unit **some** pupils should be able to:

- Compare the size of fractions using a common denominator
- Convert between mixed number and improper fractions