



Topic: Ordering Integers and Decimals

Year: 7

NC Strand: Number

What should I already know?

- How to read write and represent numbers to ten million in different ways
- How to write a number up to ten million putting the comma's in the correct places
- How to compare and order whole numbers up to ten million
- How to use the correct mathematical vocabulary alongside inequality symbols
- How to round numbers up to ten million to the nearest 10, 100, 1000, 10,000, 100,000, 1,000,000
- How to use pictures and number lines to work with negative numbers to find intervals across zero

What will I know by the end of the unit?

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| <ul style="list-style-type: none"> • How to recognise place value of any number up to one billion • How to write integers up to one billion in words and figures • How to work out intervals on a number line • How to position integers on a number line • How to round integers to the nearest power of ten • How to compare two numbers and use the correct symbol • How to order a list of integers • How to find the range for a set of numbers • How to find the median for a set of numbers | <ul style="list-style-type: none"> • Place value for decimals • How to position decimals on a number line • How to compare an order any number up to one billion • How to round a number to 1 significant figure • How to write 1, 10, 100, 1000, etc as powers of ten • How to write positive integers in the form $A \times 10^n$ • Negative powers of ten • How to write decimals in the form $A \times 10^n$ |
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Vocabulary

Place holder	Halfway	Ascending	Decimal
Place value	Convention	Leading digit	Decimal point
Integer	Round	Range	Round
Digit	Nearest	Greatest	Approximate
Billion	Compare	Least	Significant Figure
Equal division	Equal	Difference	Power
Space	Not equal	Median	Index
Gap	Greater than	Middle	million
Interval	Less than	Average	Standard form
scale	Order	Tenth	Scientific notation
Approximate	Descending	Hundredth	Negative

Investigate/Homework tasks

- Homework will be set from the booklet issued by your teacher
- You should complete at least 30 minutes of maths tasks on Maths Whizz (not games). Please attend help sessions if you do not have access to the internet at home
- Additional work you could complete:
 - Find out more about the meaning of the vocabulary list using <http://www.amathsdictionaryforkids.com/>
- To challenge yourself: Answer the key questions to deepen your knowledge
 - Investigate the key questions typed in red text



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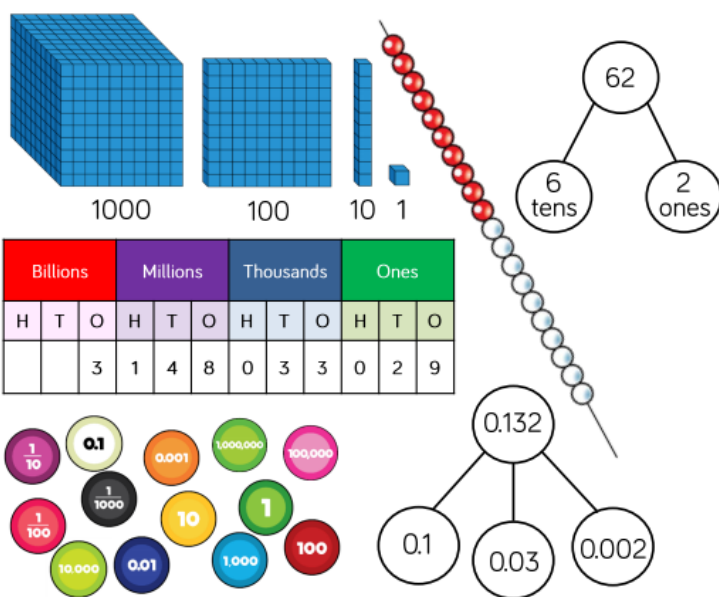
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- Explain the key questions typed in purple text

Challenge yourself by answering the questions typed in green text

Diagram



DECIMAL PLACE VALUE CHART							
Ones	Decimal point	Tenths	Hundredths	One-Thousandths	Ten-Thousandths	Hundred-Thousandths	One-Millionths
	.						

Key skills/Timeline/Topic Questions

- Why do we need place holders?
- Where do we put spaces and commas in large integers?
- Why do we count the number of spaces rather than the number of marks on a number line?
- Why can we mark some numbers exactly on a number line and others only approximately?
- When talking about the population of the UK would you round to the nearest hundred thousand or million? What about the population of Biggleswade?
- Is it true that if $a > b$ and $b > c$ then $a > c$?
- For a set of integers is the longest number always the largest?
- How do you calculate the range for a set of numbers?
- What is different about the median and the range?
- Why do we say 0.37 as nought point three seven not nought point thirty seven?
- Why is 0.4 bigger than 0.29, even though twenty nine is bigger than 4?
- When you see a list of decimal numbers in the longest number always the largest number?
- Explain how to estimate the answer to seventeen million multiplied by two point nine six.
- Why do we use standard index form?
- What is the difference between positive and negative powers of ten?
- Why is ten to the power of zero not equal to zero?