Windmill L.E.A.D Academy
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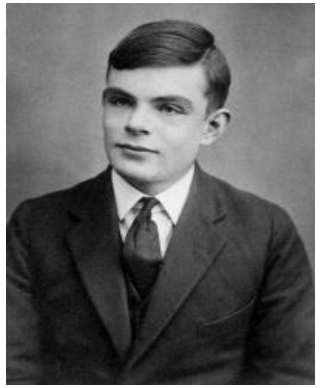
Mathematics: Year 1
Measurement

Previously, I have learnt...

- To talk about size, weight, capacity, time and money to compare quantities and objects
- To explore and describe the characteristics of everyday objects and shapes



Alan Turing

In Year 1, I am learning...

Comparing and estimating
- To compare, describe and solve practical problems for:
  - lengths and heights
  - mass/weight
  - capacity and volume
  - time
- To sequence events in chronological order using the language of time

Measuring and calculating
- To measure and record:
  - lengths and heights
  - mass/weight
  - capacity and volume
  - time
- To recognise and know the value of different denominations of coins and notes

Telling the time
- To tell the time to the hour and half past the hour, and draw the hands on a clock face to show these times
- To recognise and use language relating to dates, including days of the week, weeks, months and years

In Year 2, I will learn...

Comparing and estimating
- To compare and order lengths, mass, volume, capacity and record the results using >, < and =
- To compare and sequence intervals of time

Measuring and calculating
- To choose and use appropriate standard units to estimate and measure length and height (m/cm); mass (g/kg); temperature (°C); capacity (litres/ml) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels
- To recognise and use symbols for pounds (£) and pence (p)
- To combine amounts of money to make a particular value
- To find different combinations of coins that equal the same amounts of money
- To solve problems involving adding and subtracting amounts of money, including giving change

Telling the time
- To tell and write the time to five minutes, including quarter past/to the hour, and draw the hands on a clock face to show these times

Converting
- To know the number of minutes in an hour and the number of hours in a day

My future...

In other subjects
Science – understanding data
DT – taking measurements, understanding shape
PE – keeping score, measuring, angles
Geography – coordinates, maps
Computing – databases, coding

Life Skills
Shopping and budgeting
Critical thinking
Playing sport
Map reading
Interpreting statistics
Working with computers

Jobs
Shop worker
Bank cashier
Architect
Doctor
Nurse
Teacher
Computer programmer
and many more!

Vocabulary

estimate, close to	long, longer, longest	light lighter, lightest	month	half past
too many, too few	short, shorter, shortest	scales	year	minute
length	metre	container	before, after	money
width	ruler	full, half full, empty	next, last	coin
height	weigh	day	hour	pence
depth	heavy, heavier, heaviest	week	o'clock	pound

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Mathematics: Year 2
Measurement

In Year 1, I learnt...

Comparing and estimating
- To compare, describe and solve practical problems for:
  - lengths and heights
  - mass/weight
  - capacity and volume
  - time
- To sequence events in chronological order using the language of time

Measuring and calculating
- To measure and record:
  - lengths and heights
  - mass/weight
  - capacity and volume
  - time
- To recognise and know the value of different denominations of coins and notes

Telling the time
- To tell the time to the hour and half past the hour, and draw the hands on a clock face to show these times
- To recognise and use language relating to dates, including days of the week, weeks, months and years

In Year 2, I am learning...

Comparing and estimating
- To compare and order lengths, mass, volume, capacity and record the results using >, < and =
- To compare and sequence intervals of time

Measuring and calculating
- To choose and use appropriate standard units to estimate and measure length and height (m/cm); mass (g/kg); temperature (°C); capacity (litres/ml) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels
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Telling the time
- To tell and write the time to five minutes, including quarter past/to the hour, and draw the hands on a clock face to show these times

Converting
- To know the number of minutes in an hour and the number of hours in a day

In Year 3, I will learn...

Comparing and estimating
- To compare durations of events
- To estimate and record time in terms of seconds, minutes and hours

Measuring and calculating
- To measure, compare, add and subtract:
  - lengths (m/cm/mm)
  - mass (kg/g)
  - capacity and volume (l/ml)
- To measure the perimeter of simple 2D shapes
- To add and subtract amounts of money to give change, using both £ and p in real life contexts

Telling the time
- To tell and write the time from an analogue clock (including with Roman numerals), and 12-hour and 24-hour clocks

Converting
- To know the number of seconds in a minute
- To know the number of days in each month, year and leap year

My future...

In other subjects
Science – understanding data
DT – taking measurements, understanding shape
PE – keeping score, measuring, angles
Geography – coordinates, maps
Computing – databases, coding

Life Skills
Shopping and budgeting
Critical thinking
Playing sport
Map reading
Interpreting statistics
Working with computers

Jobs
Shop worker
Bank cashier
Architect
Doctor
Nurse
Teacher
Computer programmer
and many more!

Vocabulary

estimate, close to	metre	day	half past	quarter to/past
too many, too few	ruler	week	minute	five/ten, minutes past/ to
length	weigh	month	money	kilometres
width	heavy, heavier, heaviest	year	coin	grams
height	light lighter, lightest	before, after	pence	kilograms
depth	scales	next, last	pound	litres
long, longer, longest	container	hour		millilitres
short, shorter, shortest	full, half full, empty	o'clock		temperature (degrees)

Ada Lovelace

Windmill L.E.A.D Academy
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Mathematics: Year 3
Measurement

In Year 2, I learnt...

Comparing and estimating
- To compare and order lengths, mass, volume, capacity and record the results using >, < and =
- To compare and sequence intervals of time

Measuring and calculating
- To choose and use appropriate standard units to estimate and measure length and height (m/cm); mass (g/kg); temperature (°C); capacity (litres/ml) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels
- To recognise and use symbols for pounds (£) and pence (p)
- To combine amounts of money to make a particular value
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Telling the time
- To tell and write the time to five minutes, including quarter past/to the hour, and draw the hands on a clock face to show these times

Converting
- To know the number of minutes in an hour and the number of hours in a day

In Year 3, I am learning...

Comparing and estimating
- To compare durations of events
- To estimate and record time in terms of seconds, minutes and hours

Measuring and calculating
- To measure, compare, add and subtract:
  - lengths (m/cm/mm)
  - mass (kg/g)
  - capacity and volume (l/ml)
- To measure the perimeter of simple 2D shapes
- To add and subtract amounts of money to give change, using both £ and p in real life contexts

Telling the time
- To tell and write the time from an analogue clock (including with Roman numerals), and 12-hour and 24-hour clocks

Converting
- To know the number of seconds in a minute
- To know the number of days in each month, year and leap year

In Year 4, I will learn...

Comparing and estimating
- To compare and estimate different measures, including money in pounds and pence

Measuring and calculating
- To calculate different measures
- To measure and calculate the perimeter of a rectilinear shape (including squares) in centimetres and metres
- To find the area of rectilinear shapes by counting squares

Telling the time
- To read and write time on analogue and digital 12 and 24-hour clocks

Converting
- To convert between different units of measure
- To solve problems involving converting from:
  - hours to minutes
  - minutes to seconds
  - years to months
  - weeks to days
- To convert time between 12 and 24-hour clocks

My future...

In other subjects
Science – understanding data
DT – taking measurements, understanding shape
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Life Skills
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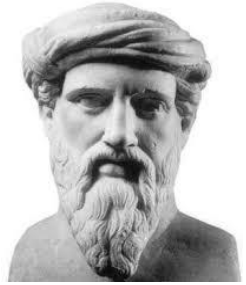
Interpreting statistics
Working with computers

Jobs
Shop worker
Bank cashier
Architect
Doctor
Nurse
Teacher
Computer programmer
and many more!

Vocabulary

estimate, close to	metre	day	half past	quarter to/past	12-hour/24-hour clock
too many, too few	ruler	week	minute	five/ten, minutes past/ to	Roman numerals
length	weigh	month	money	kilometres	perimeter
width	heavy, heavier, heaviest	year	coin	grams	century
height	light lighter, lightest	before, after	pence	kilograms	AM
depth	scales	next, last	pound	litres	PM
long, longer, longest	container	hour		millilitres	
short, shorter, shortest	full, half full, empty	o'clock		temperature (degrees)	



Pythagoras

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Mathematics: Year 4
Measurement

In Year 3, I learnt...

Comparing and estimating
- To compare durations of events
- To estimate and record time in terms of seconds, minutes and hours

Measuring and calculating
- To measure, compare, add and subtract:
  - lengths (m/cm/mm)
  - mass (kg/g)
  - capacity and volume (l/ml)
- To measure the perimeter of simple 2D shapes
- To add and subtract amounts of money to give change, using both £ and p in real life contexts

Telling the time
- To tell and write the time from an analogue clock (including with Roman numerals), and 12-hour and 24-hour clocks

Converting
- To know the number of seconds in a minute
- To know the number of days in each month, year and leap year

In Year 4, I am learning...

Comparing and estimating
- To compare and estimate different measures, including money in pounds and pence

Measuring and calculating
- To calculate different measures
- To measure and calculate the perimeter of a rectilinear shape (including squares) in centimetres and metres
- To find the area of rectilinear shapes by counting squares

Telling the time
- To read and write time on analogue and digital 12 and 24-hour clocks

Converting
- To convert between different units of measure
- To solve problems involving converting from:
  - hours to minutes
  - minutes to seconds
  - years to months
  - weeks to days
- To convert time between 12 and 24-hour clocks

In Year 5, I will learn...

Comparing and estimating
- To compare the area of squares and rectangles
- To estimate the area of irregular shapes
- To estimate volume and capacity

Measuring and calculating
- To use all four operations to solve problems involving measure (including using decimals and scaling)
- To measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- To calculate the area of squares and rectangles including using standard units including square centimetres (cm^2) and square metres (m^2)

Converting
- To convert between different units of metric measure (eg centimetres and metres, grams and kilograms)
- To understand and use equivalences between metric units and common imperial units such as inches, pounds and pints
- To solve problems involving converting between units of time

My future...

In other subjects
Science – understanding data
DT – taking measurements, understanding shape
PE – keeping score, measuring, angles
Geography – coordinates, maps
Computing – databases, coding

Life Skills
Shopping and budgeting
Critical thinking
Playing sport
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Jobs
Shop worker
Bank cashier
Architect
Doctor
Nurse
Teacher
Computer programmer
and many more!

Vocabulary

estimate, close to
too many, too few
length
width
height
depth
long, longer, longest
short, shorter, shortest
metre
ruler

weigh
heavy, heavier, heaviest
light lighter, lightest
scales
container
full, half full, empty
day
week
month
year

before, after
next, last
hour
o'clock
half past
minute
money
coin
pence
pound

quarter to/past
five/ten, minutes past/ to
kilometres
grams
kilograms
litres
millilitres
temperature (degrees)

12-hour/24-hour clock
Roman numerals
perimeter
century
AM
PM

convert
conversion
metric unit
area
square centimetre
cm^2
measuring cylinder
millennium
timetable

Rene Descartes

Windmill L.E.A.D Academy
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Mathematics: Year 5
Measurement

In Year 4, I learnt...

Comparing and estimating
- To compare and estimate different measures, including money in pounds and pence

Measuring and calculating
- To calculate different measures
- To measure and calculate the perimeter of a rectilinear shape (including squares) in centimetres and metres
- To find the area of rectilinear shapes by counting squares

Telling the time
- To read and write time on analogue and digital 12 and 24-hour clocks

Converting
- To convert between different units of measure
- To solve problems involving converting from:
  - hours to minutes
  - minutes to seconds
  - years to months
  - weeks to days
- To convert time between 12 and 24-hour clocks

In Year 5, I am learning...

Comparing and estimating
- To compare the area of squares and rectangles
- To estimate the area of irregular shapes
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Measuring and calculating
- To use all four operations to solve problems involving measure (including using decimals and scaling)
- To measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- To calculate the area of squares and rectangles including using standard units including square centimetres (cm^2) and square metres (m^2)

Converting
- To convert between different units of metric measure (eg centimetres and metres, grams and kilograms)
- To understand and use equivalences between metric units and common imperial units such as inches, pounds and pints
- To solve problems involving converting between units of time

In Year 6, I will learn...

Comparing and estimating
- To estimate and compare the volume of cubes and cuboids

Measuring and calculating
- To solve problems involving the calculation of units of measure, using decimal numbers (up to three decimal places) where appropriate
- To recognise that shapes with the same areas can have different perimeters and vice versa
- To calculate the area of parallelograms and triangles
- To calculate the volume of cubes and cuboids using standard units including cubic centimetres (cm^3) and cubic metres (m^3) extending to mm^3 and km^3
- To recognise when it is possible to use formulae to find the area and volume of shapes

Converting
- To use, read, write and convert between units of length, mass, volume and time
- To solve problems involving the conversion of units of measure
- To convert between miles and kilometres

My future...

In other subjects
Science – understanding data
DT – taking measurements, understanding shape
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ruler
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heavy, heavier, heaviest
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next, last

hour
o'clock
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12-hour/24-hour clock
Roman numerals
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convert
conversion
metric unit
area
square centimetre
cm^2
measuring cylinder
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volume
imperial unit
feet and inches
pints and gallons
pounds (lb)
square metre
m^2
square millimetre
mm^2

Katherine Johnson

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Mathematics: Year 6
Measurement

In Year 5, I learnt...

Comparing and estimating
- To compare the area of squares and rectangles
- To estimate the area of irregular shapes
- To estimate volume and capacity

Measuring and calculating
- To use all four operations to solve problems involving measure (including using decimals and scaling)
- To measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- To calculate the area of squares and rectangles including using standard units including square centimetres (cm^2) and square metres (m^2)

Converting
- To convert between different units of metric measure (eg centimetres and metres, grams and kilograms)
- To understand and use equivalences between metric units and common imperial units such as inches, pounds and pints
- To solve problems involving converting between units of time

In Year 6, I am learning...

Comparing and estimating
- To estimate and compare the volume of cubes and cuboids

Measuring and calculating
- To solve problems involving the calculation of units of measure, using decimal numbers (up to three decimal places) where appropriate
- To recognise that shapes with the same areas can have different perimeters and vice versa
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- To recognise when it is possible to use formulae to find the area and volume of shapes

Converting
- To use, read, write and convert between units of length, mass, volume and time
- To solve problems involving the conversion of units of measure
- To convert between miles and kilometres

At Key Stage 3, I will learn...

- To derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids and other prisms
- To calculate and solve problems involving: perimeters of 2D shapes (including circles), areas of circles and composite shapes

My future...

In other subjects
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pence
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quarter to/past
five/ten, minutes past/ to
kilometres
grams
kilograms
litres
millilitres

temperature (degrees)
12-hour/24-hour clock
Roman numerals
perimeter
century
AM/PM
convert
conversion
metric unit
area
square centimetre
cm^2

measuring cylinder
millennium
timetable
volume
imperial unit
feet and inches
pints and gallons
pounds (lb)
square metre
m^2
square millimetre
mm^2

yard
circumference
cubic centimetres
cm^3
cubic metres
m^3
cubic kilometres
km^3

Muhammad ibn Musa al-Khwarizmi