



Y5 Maths – Decimals A & B

Previously learned vocabulary
Decimal (y4)
Hundredth (y4)
Thousandth (y5)
Decimal places (y4)
New vocabulary (learned in y6)
Mixed number

Compare and order decimals

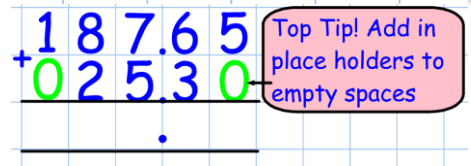


Use of place value knowledge to compare and order decimal numbers

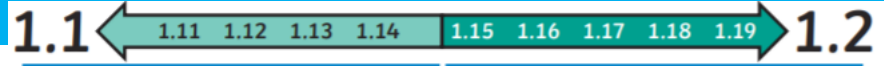
Addition and subtraction with decimals

$$187.65 + 25.3 =$$

We set out the addition like this using place value knowledge to help. Make sure the decimal points are lined up!

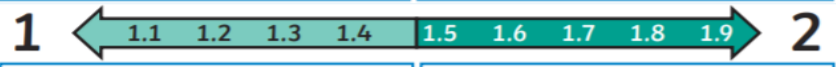


Rounding decimals to the nearest whole number and one decimal place



If the hundredths digit is 1, 2, 3 or 4, we round down to the nearest tenth.

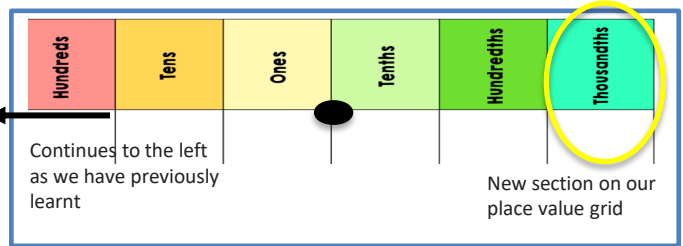
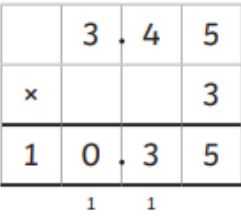
If the hundredths digit is 5, 6, 7, 8 or 9, we round up to the nearest tenth.



If the tenths digit is 1, 2, 3 or 4, we round down to the nearest whole number.

If the tenths digit is 5, 6, 7, 8 or 9, we round up to the nearest whole number.

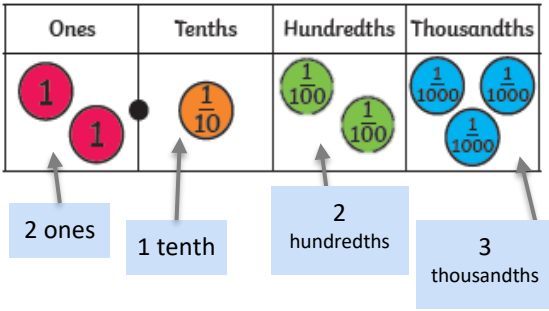
Multiplying and dividing decimals by integers



Multiplying and dividing decimals by 10, 100 and 1000

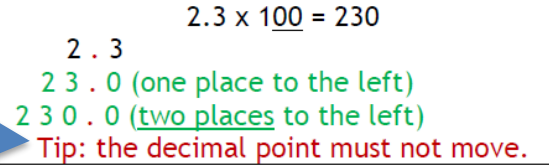


This number has...

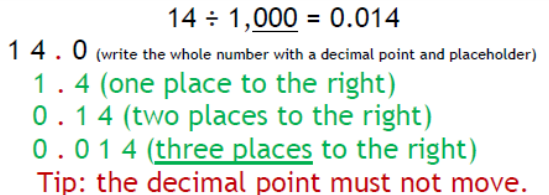


We read it at 2.123
Two point one, two, three

To multiply a number by 10, 100 or 1,000, move the digits 1, 2 or 3 places to the left. Use placeholders (0) to fill empty columns.



To divide a number by 10, 100 or 1,000, move the digits 1, 2 or 3 places to the right. Use placeholders (0) to fill empty columns.





Y6 Maths – Decimals A & B

Previously learned vocabulary
Decimal (y4)
Hundredth (y4)
Thousandth (y5)
Decimal places (y4)
New vocabulary (learned in y6)
Multi-step
Long division
Interval

Compare and order decimals

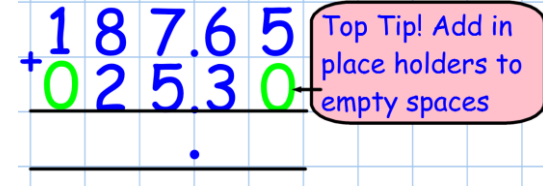


Use of place value knowledge to compare and order decimal numbers

Addition and subtraction with decimals

$$187.65 + 25.3 =$$

We set out the addition like this using place value knowledge to help. Make sure the decimal points are lined up!



Top Tip! Add in place holders to empty spaces

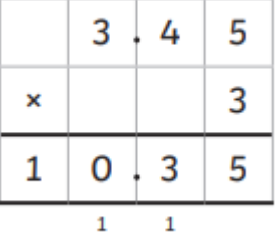
Find the place
Look next door
5 or more, raise the score
4 or less, let it rest
Look to the right...
Eliminate the digits!

Round any number to a required degree of accuracy

Round 432.674 to 2 dp

7 is the place, next door is 4
It is less than 5 so 7 stays as it is and we eliminate the 4!
The answer would be 432.67

Multiplying and dividing decimals by integers



Multiplying and dividing decimals by 10, 100 and 1000

Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths
		2	.	0	8	
		$\times 10 \leftarrow$	2	.	0	8
		2	.	0	8	
			2	.	0	8
				$\rightarrow + 10$		
			2	.	0	8

Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths
		4	.	3	5	
		$\times 100 \leftarrow$	4	.	3	5
		4	.	3	5	
			4	.	3	5
				$\rightarrow + 100$		
			4	.	3	5

To multiply a number by 10, 100 or 1,000, move the digits 1, 2 or 3 places to the left. Use placeholders (0) to fill empty columns.

To divide a number by 10, 100 or 1,000, move the digits 1, 2 or 3 places to the right. Use placeholders (0) to fill empty columns.

$2.3 \times 100 = 230$

2.3
 23.0 (one place to the left)
 230.0 (two places to the left)
Tip: the decimal point must not move.

$14 \div 1,000 = 0.014$

14.0 (write the whole number with a decimal point and placeholder)
 1.4 (one place to the right)
 0.14 (two places to the right)
 0.014 (three places to the right)
Tip: the decimal point must not move.

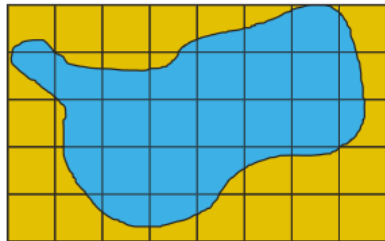
Year 5 Maths – Measurement- Area, Perimeter and Volume



Previously Learned Vocabulary	
Millimetre (y3)	Roman numerals to XII (y3)
Perimeter (y3)	Centimetre (y2)
Convert (y4)	Conversion (y4)
Rectilinear (y4)	Area (y4)
Dimensions (y4)	Kilometre (y4)
New Vocabulary	
m^2	cm^2
Composite	

Estimate area

To estimate the area of an irregular shape, find the number of whole squares plus squares where more than half is covered.



Whole squares = 10
Squares where more than half is covered = 10

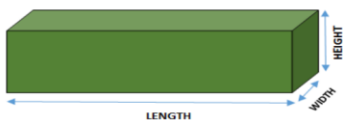
Estimate of area = whole squares + part squares
 $= 10cm^2 + 10cm^2 = 20cm^2$

Measure the perimeter of irregular shapes:



Measure the length of each side and add them together.

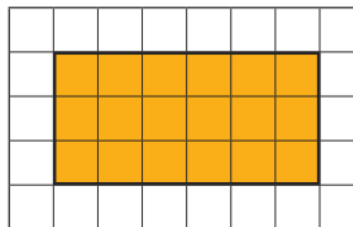
Volume = the amount of space a 3D shape takes up, usually measured in cm^3 or m^3



Volume of a cuboid = length x width x height

Calculate area of rectangles

The area of a rectangle on a grid:



Multiply the length x width
 $= 6 \times 3 = 18$ squares.

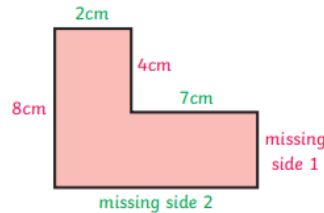
The area of a rectangle = length (l) x width (w).



Calculate area of compound shapes

To find the area of a compound shape, divide the shape into rectangles with known dimensions:

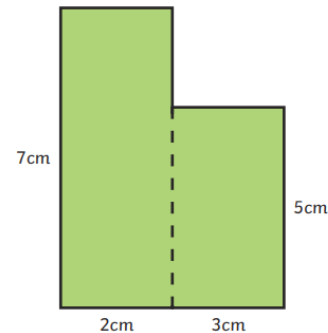
Calculate missing side lengths of rectilinear shapes



Perimeter = sum of all sides =
 $2cm + 4cm + 7cm + 4cm + 9cm + 8cm = 34cm$

Missing side 1 + 4cm = 8cm,
so missing side 1 = 4cm.

Missing side 2 = 2cm + 7cm = 9cm



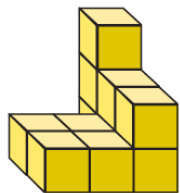
Area = $7cm \times 2cm + 3cm \times 5cm$
 $= 14cm^2 + 15cm^2$
 $= 29cm^2$

Measure and calculate perimeter

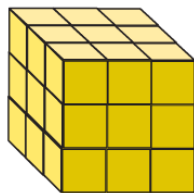


Measure the length (l) and width (w).
Perimeter = $l + w + l + w$ or $(l + w) \times 2$

Volume by counting squares

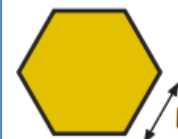


$11cm^3$



$27cm^3$

Measure the perimeter of regular shapes:



Measure the length (l) and count the number of sides (s) on the shape.

Perimeter = $l \times s$

Year 6 Maths – Area, perimeter and volume

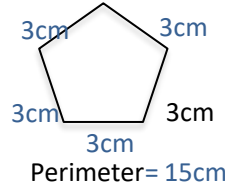


Vocabulary

Composite (y5)	Metric (y5)
Imperial (y5)	Rectilinear (y4)
Volume (y1)	Dimensions (y4)
	Capacity (y1)
New vocabulary	
mm ³	km ³

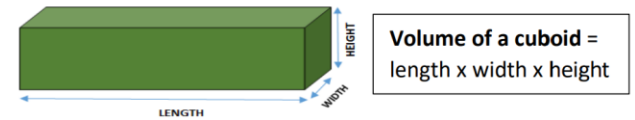
Perimeter

Perimeter is the distance around the outside of a shape. **Perimeter** is found by adding together the length of all a shape's sides



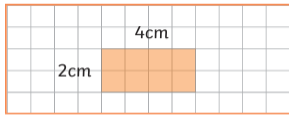
Volume

Volume = the amount of space a 3D shape takes up, usually measured in cm³ or m³



Did you know?

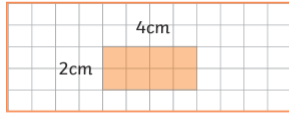
Shapes with the same areas can have different perimeters! Shapes with the same perimeters can also have different areas!



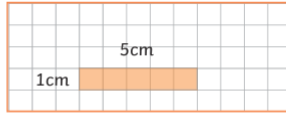
area = 8cm² perimeter = 12cm



area = 8cm² perimeter = 18cm



area = 8cm² perimeter = 12cm



area = 5cm² perimeter = 12cm

Perimeter of rectangles

perimeter = length + width + length + width or (length + width) × 2

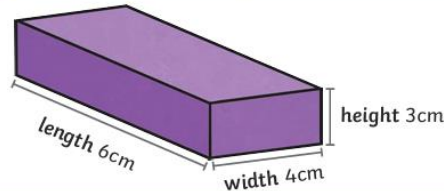


5cm + 4cm + 5cm + 4cm
perimeter = 18cm

(6 + 2) × 2
perimeter = 16cm

Volume of a cuboid

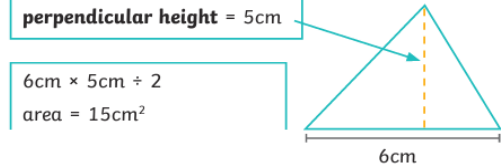
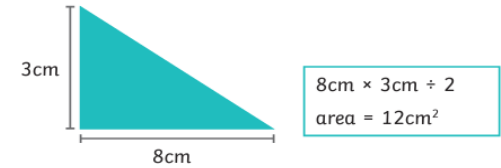
length × width × height = volume of a cuboid



Multiply dimensions in **any** order:
3cm × 6cm × 4cm
volume = 72cm³

Area of triangles

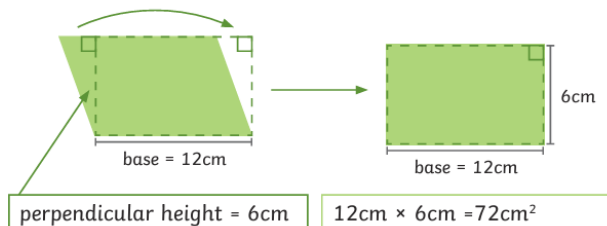
base × perpendicular height ÷ 2 = area of a triangle



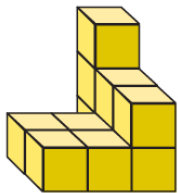
Area of parallelograms

base × perpendicular height = area of a parallelogram

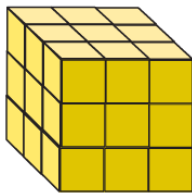
A parallelogram can be transformed into a rectangle.



Volume by counting squares



11cm³



27cm³



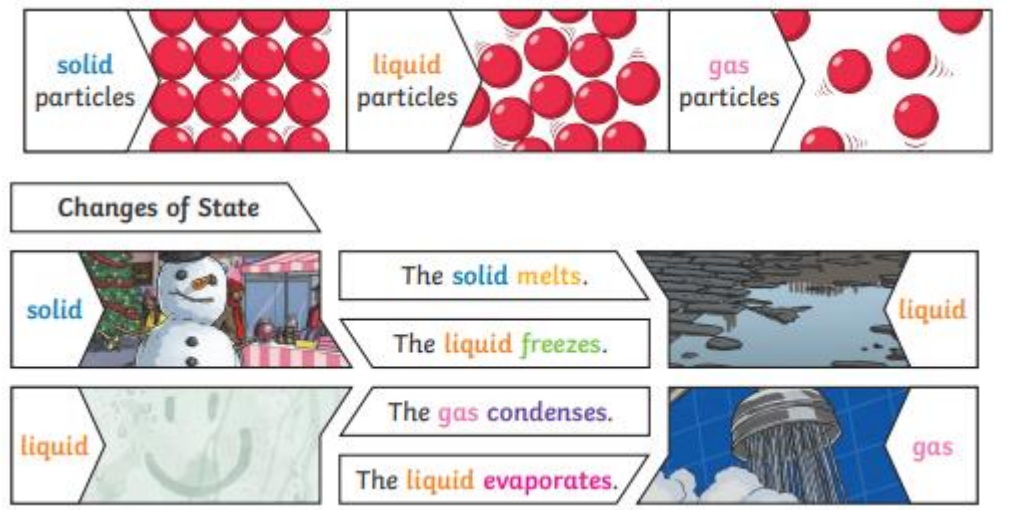
Key Vocabulary	
Properties	The characteristics of different materials that make them useful and suitable for different jobs.
Hardness	How hard or soft a material is
Solubility	Whether or not a material (solid or gas) can dissolve in a liquid.
Transparency	A transparent object lets light through so the object can be looked through, for example glass or some plastics
Conductivity	How conductive a material is. A conductor is a material that heat or electricity can easily travel through.
Dissolve	A solid that completely mixes in with a liquid and cannot be seen. This mixture of a solid and liquid is called a <u>solution</u> .
Separate	A way of reversing a change. Mixed solids and liquids can be reversed by <u>filtering</u> , <u>sieving</u> or <u>evaporation</u>
Reversible changes	A change that can be reversed (undone), such as mixing and dissolving solids and liquids.
Irreversible changes	A change that cannot be undone. They often result in a new product being made. For example – burning wood produces ash.
Permeable	If a material is permeable it allows water to go through it.
Impermeable	Impermeable materials do not allow water to go through it so they are waterproof.

Key Information I will learn...

Materials

- Different materials are used for particular jobs based on their properties: electrical conductivity, flexibility, hardness, insulators, magnetism, solubility, thermal conductivity, transparency.

States of matter



Benerito researched how to treat cotton fabric with chemicals so that it would wrinkle less. She invented a treatment that kept cotton from creasing when it was wet or dry.

Ruth Benerito
1916-2013



For example, glass is used for windows because it is hard and **transparent**. Oven gloves are made from a thermal **insulator** to keep the heat from burning your hand.

Understanding properties helps pick the best materials for the job

Prior learning

We have investigated some properties of materials before in **Year 2 (Materials unit)** and **Year 3 (Rocks unit)**. We explored how hard, squashy, smooth, bumpy, soft, flexible, rough, waterproof and shiny different everyday materials are. In **Year 3** they learnt about magnetic materials and in **Year 4** they learnt about insulators and conductors of electricity only

Solids, liquids and gases are the three states of matter. (**Year 4**)

* In solids the particles are very close together so hold their shape

* In liquids, particles are more loosely packed and can move around each other. This means liquids can flow and take the shape of the container they are in.

* In gases, particles are further apart again. They are free to move around.



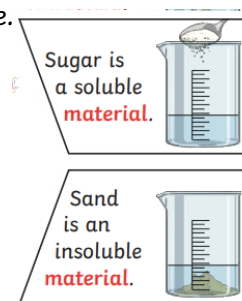
An example of a reversible change



An example of an irreversible change

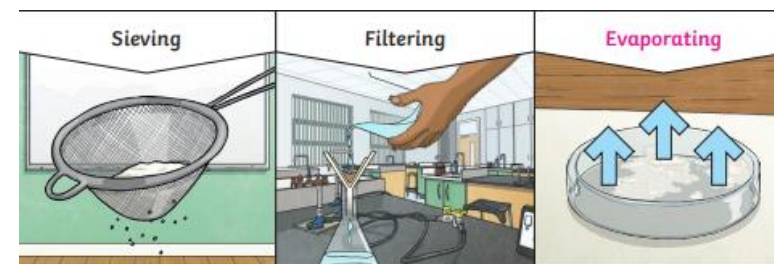
Dissolving

- A solution is made when solid particles are mixed with liquid particles.
- Materials that will dissolve are known as soluble.
- Materials that won't dissolve are known as insoluble.
- A suspension is when the particles don't dissolve.



Changes

Reversible changes such as mixing and dissolving solids and liquids together can be reversed by;



- Sieving – smaller materials are able to fall through the holes in the sieve, separating them from larger particles
- Filtering – the solid particles get caught in the filter paper but the liquid passes through it.
- Evaporating – the liquid changes into a gas leaving the solid particles behind.

Irreversible changes often result in a new product being made from the old one e.g ash

Key Questions

- What does dissolve, soluble, insoluble and solution mean?
- Which process do we use to separate soluble material from water?
- Which process do we use to separate insoluble materials from water?
- When materials are mixed together can they always be separated?
- Which processes can cause irreversible changes?
- What is produced from an irreversible change?
- How can we reverse a change caused by heating or cooling?
- What new material is formed when materials are burned?

End Goals

Children will

- explain everyday uses of materials.
- explain what dissolving is.
- name equipment for filtering and sieving.
- Know how to recover substances from solutions or mixtures by evaporation, filtering or sieving.
- describe reversible and non-reversible changes to materials and give examples.

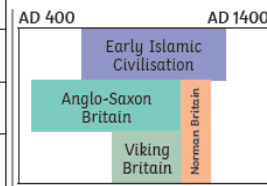


Key Vocabulary	
calligraphy	A form of artistic, decorative writing. It allowed early Islamic artists to communicate a text in decorative ways.
caliph	A caliph is the leader of a caliphate - a political-religious form of government of a Muslim community. A caliph had to be Muslim, male, sane, fair, just and law-abiding.
The House of Wisdom	A library and research facility which collected and translated writing from many cultures. By AD 900, the House of Wisdom had more books than anywhere else in the world. It was founded by <u>Caliph Harun al-Rashid.</u>
scholar	A person dedicated to learning, often at a high level and in a particular area of study. Early Islamic scholars made many discoveries and inventions. These discoveries include perfume, algebra, treatments of diseases such as small pox and surgical techniques and tools.
concurrent	Historical events that occur at the same time.



Key Information I will learn...

Baghdad and the Islamic Empire	London and Europe
Baghdad population: over a million	London population: approximately 20,000
Millions of books, many thousands of readers.	Very few books, only very rich or educated people could read.
Clean water and good drainage in cities.	Very little drainage in cities, water supplies were unsafe.
Advanced mathematics used Arabic numbers and the concept of 'zero'.	Basic mathematics, with Roman numerals and no concept of 'zero'
General peace across a huge Islamic empire.	Many wars between Christian kingdoms.



Baghdad

Baghdad was located on the Silk Road so was a centre for trade. The city of Baghdad was built on the banks of the River Tigris. The river provided a great water supply and Fertile land.

Key Questions

When did the Islamic civilisation begin?

What was happening Britain at the same time?

What was the House of Wisdom?

What was the silk road & why was this important for Baghdad?

Was education free in Baghdad?

Islamic Civilisation

The Early Islamic Civilisation began AD 570 and ended in AD 1258. It spread from the Middle East to North Africa, Spain and India

Important Islamic cities were **Baghdad**, Córdoba and Cairo. Baghdad was the largest city in the world in AD 900.

Islamic art

End Goals

Children can:

- State that the Early Islamic Civilisation began around AD 570.
- Identify that The Islamic Empire spread from the Middle East to North Africa, Spain and India.
- Identify important early Islamic cities - Baghdad (in modern-day Iraq), Córdoba (in Spain) and Cairo (in Egypt).
- Compare Early Islamic Civilisation, the Anglo-Saxons and Vikings settling in Britain.
- State that in AD 900, Baghdad was the largest city in the world.
- Discuss The House of Wisdom in Baghdad and know that it contained wonderful libraries which preserved knowledge from the Ancient Greeks and the Romans that would otherwise have been lost.
- Talk about free education, free health care, public baths and sewage systems in Baghdad
- Identify that Baghdad was located on the Silk Road so was a centre for trade and that the city's location on the Tigris River meant a great water supply and fertile soil too.



Key Vocabulary

Theatre	a building or outdoor area in which plays and other dramatic performances are given.
Animation	the technique of photographing successive drawings or positions of puppets or models to create an illusion of movement when the film is shown as a sequence.
Set design	The set helps show where and when the story of a play takes place, while also conveying meaning to the audience.
Stimulus	a thing or event that evokes a specific functional reaction
Background	the part of a picture, scene, or design that forms a setting for the main figures or objects, or appears furthest from the viewer.
foreground	the part of a view that is nearest to the observer

Key Information I will learn...

Tiny inventions

Max Porter and Ru Kuwahata are award-winning animation directors. They often combine handcrafted art, CG animation, drawn animation, stop-motion and photographic effects. Since 2008, Max & Ru have been working together as “Tiny Inventions”.

End points

Children can
 Use charcoal, graphite, pencil, pastel to create drawings of atmospheric “sets” to help inform (though not design) set design (see column 6 “making”).
 Explore mark making.
 Brainstorm ideas generated when reading poetry or prose.
 Make visual notes to capture, consolidate and reflect upon the artists studied.
 Explore ideas relating to design (though do not use sketchbooks to design on paper), exploring thoughts about inspiration source, materials, textures, colours, mood, lighting etc
 Understand that set designers can design/make sets for theatres or for animations.
 Understand that designers often create scaled models to test and share ideas with others.
 brief, to create a scale model “set” for a theatre production or an animation. Construct with a variety of media, using tools. Think about scale, foreground, background, lighting, texture, space, structure and intention

Set designer – Rae Smith

Rae Smith is a British set and costume designer. Smith worked as set designer on War Horse, a stage adaptation of Michael Morpurgo’s novel about a horse on the Western Front of the First World War.



Key questions

- Describe the atmosphere of the set.
- How do you think this has been achieved?
- What materials do you think the artist used?
- What do you think the role of ‘set designer’ entails?
- What materials do you think the directors may have used to make the set?
- How many different sets can you spot in the animation?

Structures - Bridges

Accurate	Neat, correct shape, size and pattern with no mistakes.
Arch bridge	A bridge which is built with a curved arch.
Beam bridge	A bridge which is built with horizontal beams and vertical pillars.
Bench hook	A tool which hooks onto the edge of the workbench. It's used to hold woodwork still when sawing.
Compression	A squashing force caused when parts of a structure are pushed together.
Coping saw	A saw with a narrow D-shaped metal blade, used for cutting curves in wood.
File	A tool used to smooth down rough edges on wood or metal materials.
Mark out	To measure and mark where a piece of material needs to be cut or shaped.
Reinforce	To make a structure or material stronger, especially by adding another material or element to it.
Sand paper	Strong paper with sand on one side to smooth or polish woodwork.
Set square or Try square	A right-angle triangular plate, wood or metal tool used for drawing lines at 90°, 45°, 60°, or 30°.
Shape	The form of an object.
Structure	Something which stands, usually on its own.
Suspension bridge	A bridge which is supported by vertical cables and suspended by cables which run between pillars that are connected onto either end of the bridge.
Tenon saw	A saw with a flat blade, used for cutting wood in straight lines or angles.
Tension	A stretching force caused by two parts of a structure being pulled apart.
Truss bridge	A bridge which is built from a series of triangular beams.

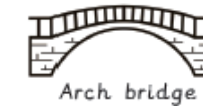
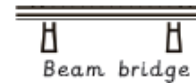
Key facts

Kapow Primary

Forces can change the **shape** of objects, they can also make objects begin to move, speed up or slow down.



Pulls and pushes are both forces.



Gravity is a force which pulls everything towards the centre of the Earth. The weight of something is the force that the Earth's gravity is having on it.



End Goals

Children can;

- Design a stable structure that is able to support weight.
- Create a frame structure with a focus on triangulation.
- Make a range of different shaped beam bridges.
- Use triangles to create truss bridges that span a given distance and support a load.
- Build a wooden bridge structure.
- Independently measure and mark wood accurately.
- Select appropriate tools and equipment for particular tasks.
- Use the correct techniques to saws safely.
- Identify where a structure needs reinforcement and use card corners for support.
- Explain why selecting appropriating materials is an important part of the design process.
- Understand basic wood functional properties.
- Adapt and improve own bridge structure by identifying points of weakness and reinforcing them as necessary.
- Suggest points for improvements for own bridges and those designed by others.
- Understand some different ways to reinforce structures.
- Understand how triangles can be used to reinforce bridges.
- Understand why material selection is important based on properties.
- Understand the material (functional and aesthetic) properties of wood.
- Understand the difference between arch, beam, truss and suspension bridges.
- Understand how to carry and use a saw safely.

Key Questions

- Which tool do you use to cut wood?
- Name 4 different types of bridges?
- What are material properties?
- How do you strengthen and reinforce corners and joins?






RE Unit 5.2 What values are shown in codes for living? Oak Class – Heptonstall School



Key Vocabulary	
Humanist	The belief that human experience and rational thinking provide the moral code to live by.
Atheist	Someone who does not believe in the existence of God/Gods.
Beatitudes	8 blessings/maxims declared by Jesus
Fellowship	A friendship with a group of people who share interests
Integrity	The quality of being honest and having strong moral principles
Morality	People do not live forever
Slander	A false spoken statement that could damage a person's reputation
Quakers	A Christian faith group committed to working for equality and peace

End Goals	
Children will	<ul style="list-style-type: none"> Ask thoughtful questions about religious and non-religious ways of life Make links between religious and non-religious ideas. Make links between thoughts and ideas and words and actions, suggesting how thinking can lead to action Consider moral questions about whether there are 'bad thoughts' and understand the impact of ideas on behaviour Retell a story of the Prophet Muhammad and suggest what it might mean to a Muslim. Describe and link up some Muslim teachings with how Muslims choose to live Describe some ways people try to increase peace Explain what a Christian believes and what I believe to be really important attitudes and values. Describe similarities and differences between the codes for living used by Christians and the followers of at least one other religion Consider questions about rules for living for myself, applying ideas from Christians and Humanists for myself

Key Information I will learn...	
Codes for living Judaism The 10 Commandments: 1. Always put God first. 2. Do not worship any other Gods. 3. Use God's name with respect. 4. Respect God's holy day. 5. Respect your parents. 6. Do not hurt other people. 7. Be faithful in marriage. 8. Do not steal. 9. Do not lie. 10. Do not want what others have.	 Christianity To be happy... • love God • love other people • be gentle and kind • be fair and work to make sure others are treated justly • forgive when people hurt and upset us • be good peacemakers; help people and nations make friends • stand up for what is right.
Islam ♦ Be kind and considerate ♦ Be tolerant ♦ Be gentle ♦ Be polite ♦ Be decent ♦ Be keen to learn ♦ Have a sense of community	 keep promises Be patient Be thankful Be clean
Humanism ♦ Be honest ♦ Use your mind ♦ Tell the truth ♦ Do to other people what you would like them to do to you	 Sikhism There is only one God. Worship and pray to the one God and to no one else. Remember God, work hard and help others. God is pleased with honest work and true living. Before God, there is no rich, no poor, no black, no white. It is your actions that make you good or bad. Men and women are equal before God. Love everyone and pray for the good of all. Be kind to people, animals and birds. Do not fear. Do not frighten Always speak the truth: God and truth are two in one. Be simple in your food, dress and habits. God is the end of which no one know. The more you say, the more it grows.

Key questions
What is a code for living? What codes for living do people who aren't religious use? What codes for living do Christians try to follow? Where do Muslims find their inspiration? How do Jews live by the principles of Tikkum Olam?

Humanist organisations
Amnesty – a charity that exposes abuse. It also monitors governments and companies to ensure they keep promises and respect international law. Islamic Aid – a charity that strives to improve the lives of people affected by poverty, war and disaster, regardless of their religion. United Nations – an intergovernmental organization that aims to maintain international peace and develop friendly relations Christian Aid – a charity that strives to support sustainable development, eradicate poverty, support civil society and provide disaster relief.

Dance involves movements of the body with rhythm, usually to music. Instead of using words, we can use dance as a way of expressing ourselves and our feelings. Dance also improves our fitness, gives us better coordination, and helps us to connect with other people.



Diversity

Members: 20

Nationality: British

Age range: 18 - 29

Fact: Diversity won Britain's Got Talent in 2009

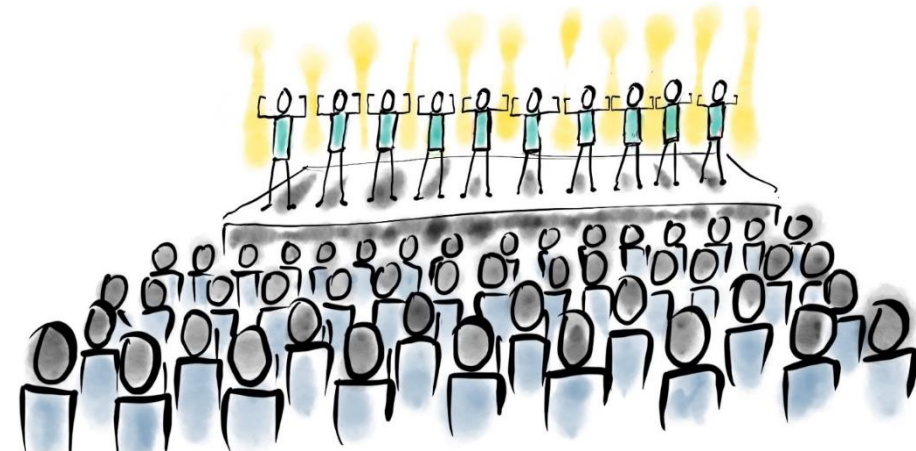
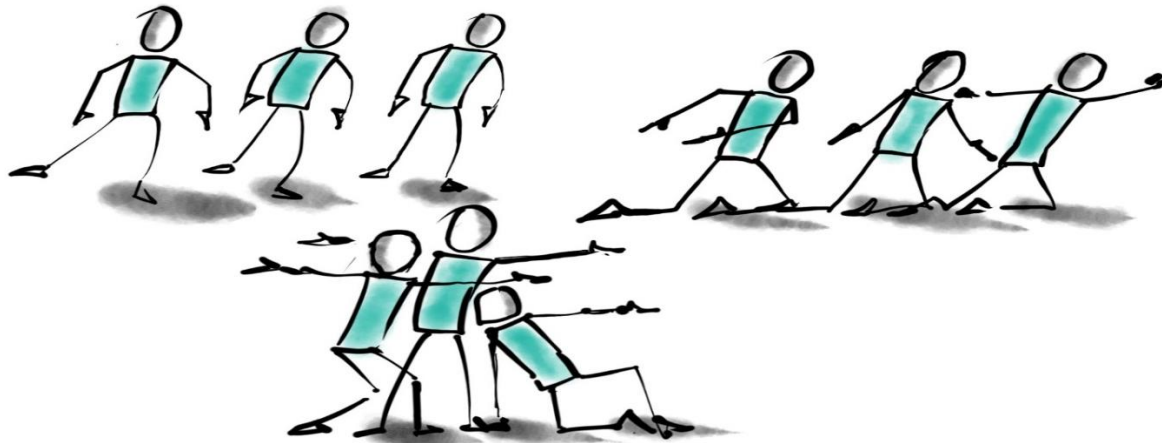


routine movement fluency

music unison

choreography

beat of 8



STEPS TO SUCCESS

These are the skills I need to achieve success in UKS2 Dance:

To be inspired by music and different stimuli.

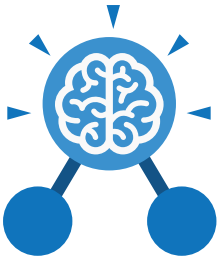
To show ideas through dance.

To create sections of dance on your own, and in a group.

To apply the principles of dance to a routine.

To combine movements – keeping to the beat.

To perform to an audience.



Unit: 5.5

Game Creator

Key Learning

- To plan a game.
- To design and create the game environment.
- To design and create the game quest.
- To finish and share the game.
- To self and peer evaluate.

Key Resources



Key Vocabulary

Animation

Creating an illusion of movement.

Image

In this case, a picture displayed on the computer screen.

Texture

High frequency detail or colour information on a computer-generated graphic.

Computer game

A game played using a computer, typically a video game.

Instructions

Detailed information about how something should be done or operated.

Perspective

Representing three-dimensional objects on a two-dimensional surface to give the right impression of their height, width, depth, and position in relation to each other.

Customise

Modify (something) to suit an individual or task.

Interactive

Responding to a user's input on a computer or device.

Playability

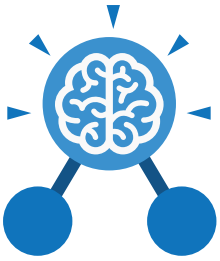
A measure of either the ease by which a video game may be played, or of the overall quality of its gameplay.

Evaluation

The making of a judgement about the value of something.

Screenshot

An image of the data displayed on the screen of a computer or mobile device.



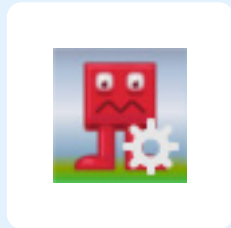
Unit: 5.5

Game Creator

Key Images



Open, close and share work



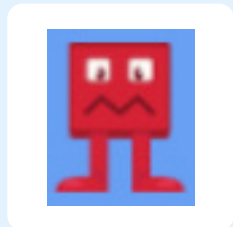
Change the settings of your game



Insert treasure into your game



Add images to your game



Insert enemies into your game



Drag to set the start position of your game



Play your game

Key Questions

What is the 2DIY3D tool on Purple Mash?

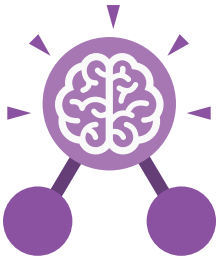
2DIY 3D allows users to create a playing area, such as a maze, in 2D and then turn it into a 3D computer game. The aim is to avoid the 'baddies' and collect 'treasure'.

What makes a good computer game?

A good game designer gives the player continuous challenges in a visually stimulating environment, each of which leads to another challenge, to keep the game challenging and fun.

Why is it important to continually evaluate your game?

Evaluating your game as you make it allows you to think about ways in which it can be improved. Evaluation may also involve the views of other people who play your game.



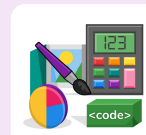
Unit: 6.1

Coding

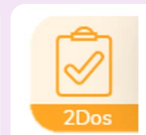
Key Learning

- To design a playable game with a timer and a score.
- To plan and use selection and variables.
- To understand how the launch command works.
- To use functions and understand why they are useful.
- To understand how functions are created and called.
- To use flowcharts to create and debug code.
- To create a simulation of a room in which devices can be controlled.
- To understand how user input can be used in a program.
- To understand how 2Code can be used to make a text-adventure game.

Key Resources



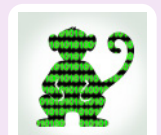
Tools



2Dos



2Chart



Free code gorilla

Key Vocabulary

Action

The way that objects change when programmed to do so. For example, move or change a property.

Algorithm

A precise step by step set of instructions used to solve a problem or achieve an objective.

Command

A single instruction in a computer program.

Co-ordinates

Numbers which determine the position of a point, shape or object in a particular space.

Event

An occurrence that causes a block of code to be run. The event could be the result of user action such as the user pressing a key (**when Key**) or clicking or swiping the screen (**when Clicked, when Swiped**) or when objects interact (**collision**). In 2Code, the event commands are used to create blocks of code that are run when events happen.

Decomposition

A method of breaking down a task into manageable components. This makes coding easier as the components can then be coded separately and then brought back together in the program.

Execute\Run

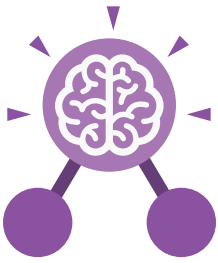
Clicking the Play button to make the computer respond to the code. Execute is the technical word for when you run the code. We say, 'the program (or code) executes.'

Debug/Debugging

Fixing code that has errors so that the code will run the way it was designed to.

Flowchart

A diagram that uses specifically shaped, labelled boxes and arrows to represent an algorithm as a diagram.



Unit: 6.1

Coding

Key Vocabulary

Function

A block or sequence of code that you can access when you need it, so you don't have to rewrite the code repeatedly. Instead, you simply **call** the function each time you want it.

Object

Items in a program that can be given instructions to move or change in some way (action). In 2Code Gorilla, the **object types** are button number, input, text, shape turtle, character, object, vehicle, animal.

Procedure

An independent code module that fulfils a task and is referenced within a larger body of code. In 2Code a procedure might be coded as a function.

Selection

Selection is a decision command. When selection is used, a program will choose which bit of code to run depending on a condition. In 2Code selection is accomplished using 'if' or 'if/else' statements.

Tab

In 2Code, this is a way to organise a program into separate pages (tabs) of code.

Input

Information going into the computer. This could be the user moving or clicking the mouse, or the user entering characters on the keyboard. On tablets there are other forms such as finger swipes, touch gestures and tilting the device. In 2Code the commands **prompt for input** and **get input** are used to prompt the user to enter typed input and then use this input.

Properties

These determine the look and size of an object. Each object has properties such as the image, scale and position of the object.

Sequence

This is when a computer program runs commands in order.

Simulation

A model that represents a real or imaginary situation. Simulations can be used to explore options and to test predictions.

Timer

Use this command to run a block of commands after a timed delay or at regular intervals.

Launch Command

This command will open another Purple Mash file or an external website that you specify when it is called.

Output

Information that comes out of the computer e.g. **sound**, **prompt**, **alert** or **print to screen**.

Predict

Use your understanding of a situation to say what will happen in the future or will be a consequence of something

Repeat

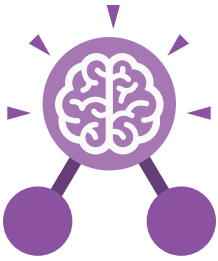
This command can be used to make a block of commands run a set number of times or forever.

Repeat Until

In 2Code this command will repeat a block of commands until a condition is met.

Variable

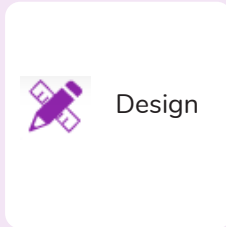
A named area in computer memory. A variable has a **name** and a **value**. The program can change this variable value. Variables are used in programming to keep track of things that can change while a program is running.



Unit: 6.1

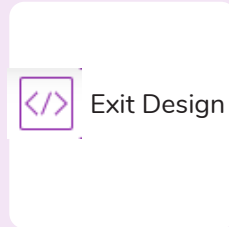
Coding

Key Images



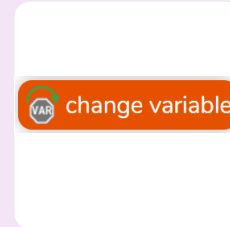
Design

Open design mode in 2Code.



Exit Design

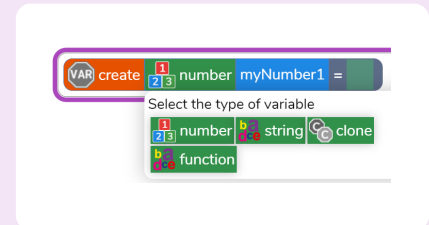
Switch to code mode in 2Code.



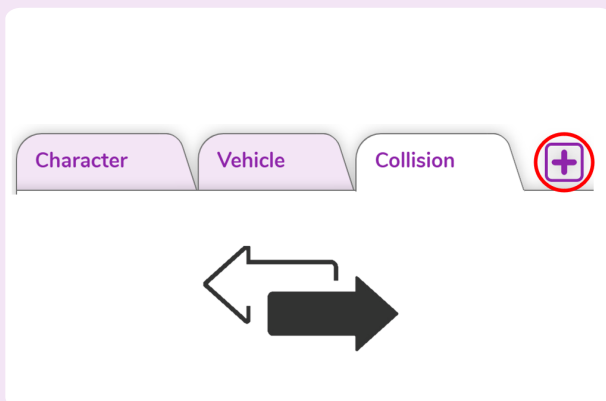
A change variable block.



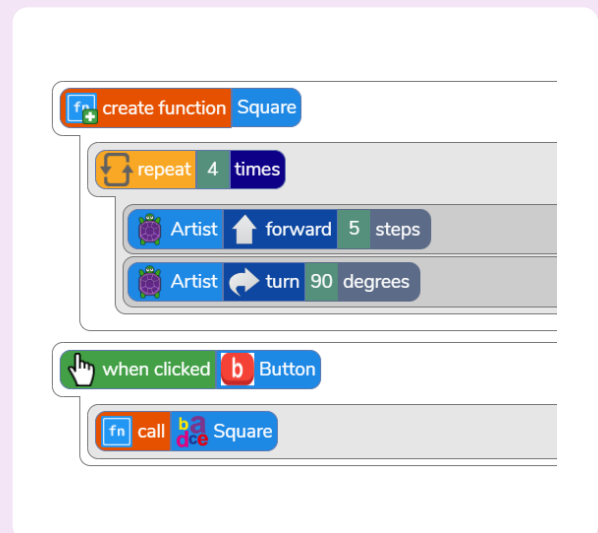
Example of combining variables and strings to print to the screen



Creating a variable in 2Code



Add a new Tab to your code or move code blocks between tabs



A function called 'square' that is called by clicking on a button called btnSquare.



Unit: 6.1

Coding

Key Questions

How can you use Tabs in 2Code Gorilla?

Tabs are used to organise your code and make it more readable. This also makes it easier to debug. Give the Tabs useful names to help with this.

What is a function in coding? Give an example that you have used in 2Code Gorilla.









A function is a block of code that you can access when you need it, so you don't have to rewrite the same block repeatedly. You call the function each time you want it. In a turtle program you could have a button that will make the turtle draw a square each time you click it. In the text adventure, there were functions for each room that were called when the user navigated to the room.

In 2Code Gorilla, how can a program receive user input?

When the user clicks on an object, when the user presses keys or swipes the screen with the mouse, the 'Get Input' and 'Prompt for input' commands.
On a touchscreen: when the screen is touched or swiped.

Key Vocabulary – Drinks








f = feminine m = masculine

Une bouteille de... A bottle of...		Un verre de... A glass of...		Une tasse de... A cup of...	
(le) thé (m) 	(le) café (m) 	(le) café au lait (m) 	(le) chocolat chaud (m) 		
(la) limonade (f) 	(l')eau (f) 	(le) jus d'orange (m) 	(le) coca (m) 		










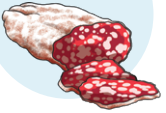


Key Vocabulary – Breakfast

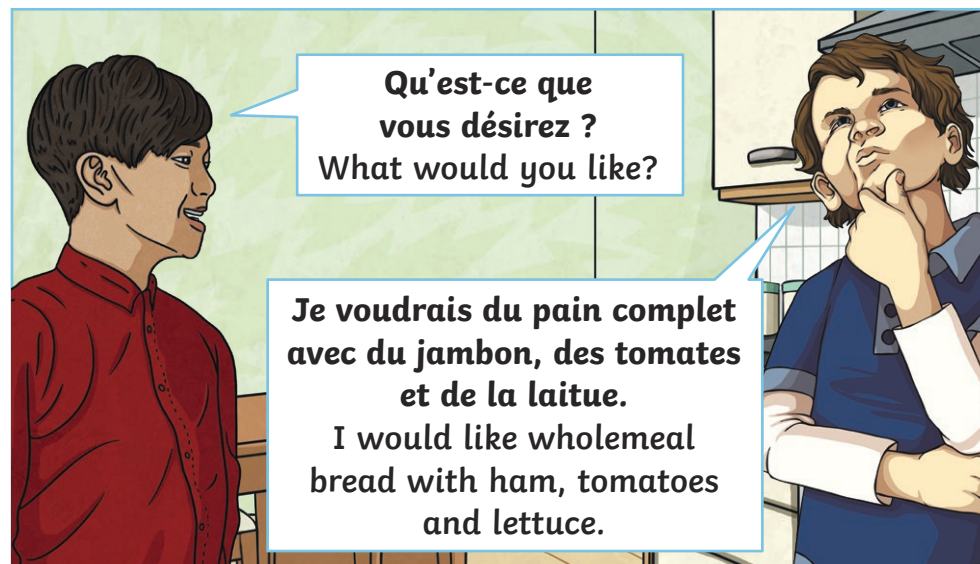
Pour mon petit déjeuner, je voudrais...

For my breakfast I would like...

une baguette (f) 	un croissant (m) 	un yaourt (m) 	des céréales (m) 
un pain au chocolat (m) 	de la confiture (f) 	du lait (m) 	

Key Vocabulary – Sandwiches

le sandwich (m) 	le pain aux herbes (m) 	le rosbif (m) 	la laitue (f) 
la baguette normale (m) 	le jambon (m) 	le poulet (m) 	le concombre (m) 
le pain complet (m) 	le saucisson sec (m) 	l'oignon (f) 	les tomates (f) 



Key Vocabulary – Pizza Ingredients

Je voudrais du/de la/de l'/des... sur ma pizza.

I would like some... on my pizza.

(la) purée de tomates (f)



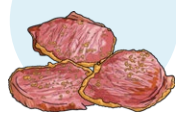
(le) fromage (m)



(l') ananas (m)



(le) bacon (m)



(les) champignons (m)



Key Language in Context

À quelle heure est-ce que le restaurant ouvre/ferme ?

At what time does the restaurant open/close?

À deux heures et demie.

At half past two.

Qu'est-ce que vous désirez sur votre pizza ?

What would you like on your pizza?

Je voudrais de la purée de tomates, du fromage et des champignons sur ma pizza.

I would like some tomato puree, some cheese and some mushrooms on my pizza.

Qu'est-ce que vous désirez boire ?

What would you like to drink?

Je voudrais un verre de limonade.

I would like a glass of lemonade.

J'aime la glace parce qu'elle est crémeuse.

I like ice cream because it's creamy.



Je n'aime pas le café parce qu'il est amer.

I don't like coffee because it's bitter.

Key Knowledge and Grammar

There are special rules to follow when saying **some**:

- If the word is masculine (**le**), doesn't start with a vowel and is singular, such as **le jambon**, then the French for **some** is **du**, e.g. **du jambon** [**some** ham].
- If the word is feminine (**la**), doesn't start with a vowel and is singular, such as **la purée de tomates**, then the French for **some** is **de la**, e.g. **de la purée de tomates** [**some** tomato puree].
- If the word starts with a vowel (masculine or feminine) and is singular, such as **l'ananas**, then the French for **some** is **de l'**, e.g. **de l'ananas** [**some** pineapple].
- If the word is plural (masculine or feminine), such as **les tomates**, then the French for **some** is **des**, e.g. **des tomates** [**some** tomatoes].

J'aime...



Je n'aime pas...



parce qu'il/elle est...

because it is...

délicieux

amer

sucré

salé

chaud

froid

croquant

mou

savoureux

collant

crémeux

délicieuse

amère

sucrée

salée

chaude

froide

croquante

molle

savoureuse

collante

crémeuse

delicious

bitter

sugary

salty

hot

cold

crunchy

soft

tasty

sticky

creamy