Computing Retrieval Quiz Links

Quizlet Links

Year 1:   **https://quizlet.com/gb/867958186/year-1-computing-flash-cards/?new**

Year 2:   **https://quizlet.com/gb/867961673/year-2-computing-flash-cards/?new**

Year 3:   **https://quizlet.com/gb/867962827/year-3-computing-flash-cards/?new**

Year 4:   **https://quizlet.com/gb/868006365/year-4-computing-flash-cards/?new**

Year 5:   **https://quizlet.com/gb/868017941/year-5-computing-flash-cards/?new**

Year 6:   **https://quizlet.com/gb/868005339/year-6-computing-flash-cards/?new**

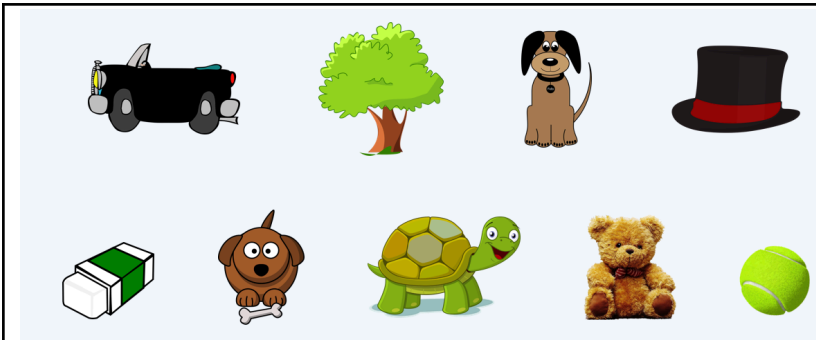**Please check the questions below - a number of quiz questions rely upon images / code snippets to be found below which you will need to display alongside the relevant quiz question. It's not possible to upload these images to Quizlet.**

Year 1

| E safety	
Technology Around Us Give 3 examples of technology you might use / see in school	Examples include ... Computer, IWB, iPad, BeeBot, loop system (hearing support)
You can move a pointer around the screen, input instructions to the computer and draw a picture with this device. What is the device?	mouse
You would use this device to type a sentence. What is the device?	keyboard
I want to create a digital picture that looks like Kandinski's Which tool should I use in the 'Paintz' app and why?	The paintbrush. This is because Kandinsky's circles aren't perfect (unlike the ones you create using the shape tool). The paintbrush is thicker than the pencil, which will look more like the artist's work.
If I press these buttons on a BeeBot, which shape would BeeBot create? Forward, Right Turn, Forward, Right Turn, Forward, Right Turn, Forward	Square
Is there another way I could create the same shape? Write the commands.	Could use 'Left Turn' rather than 'Right Turn' Could use 'Backwards' rather than 'Forwards'
Grouping Data What groups could you make?	Answers could include: Green / not green Animals / not animals Living / not living

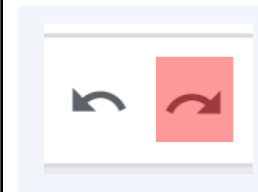**Digital writing**
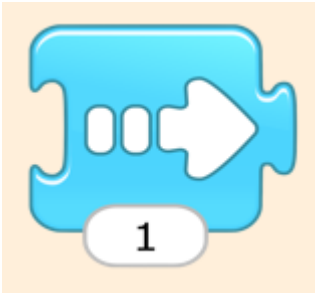
What do these arrows mean when word processing?

1
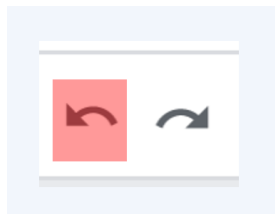
2
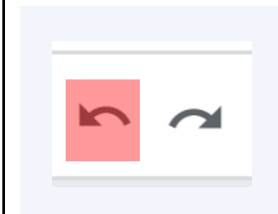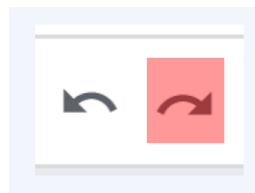
Undo

Redo

Programming animations
What do these commands mean?

1.

2.

forward 1

Turn right

Can you write this program with fewer blocks?

Use the numeral underneath the forward arrow - change the value to '5' in one 'forward' block. This is the same as using the 'forward' block 5 times.

Start (Green flag) - forward 5 - stop (red)

Year 1	Technology around us	Digital painting	Moving a robot	Grouping data	Digital writing	Programming animations
	Recognising technology in school and using it responsibly.	Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	Writing short algorithms and programs for floor robots, and predicting program outcomes.	Exploring object labels, then using them to sort and group objects by properties.	Using a computer to create and format text, before comparing to writing non-digitally	Designing and programming the movement of a character on screen to tell stories.

Computing Retrieval Questions
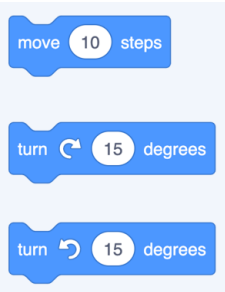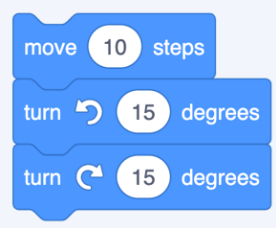
Year 2

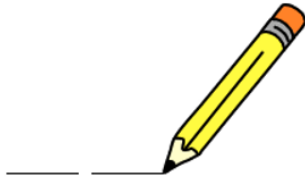|	
What are the 4 main reasons we have rules when using technology?	- To stay safe - To make sure we are all happy - So that we can learn - To help us to be kind to each other
When working on a computer, why is it important to name the files you save sensibly?	- It helps you to find it more easily - You know what a saved file is without having to open it
In programming, what is a bug?	A bug is a mistake in a program which means it does not do what you expect it to.
In programming, what is 'debugging'?	Bugs are found in most programs and are a normal part of programming — debugging means spotting where the mistake is and fixing it to improve the program.
My friend thinks you can sort items in a pictogram by more than one attribute. Is he correct? Why / why not?	An attribute of a group can only be one 'thing' (like 'number of wheels'). The friend needs to find what all of the items share - they have to spot the pattern - eg in a 'vehicle' pictogram bike and motorbike (2 wheels) car and van (4 wheels).

Year 2	Information technology around us	Digital photography	Robot algorithms	Pictograms	Digital music	Programming quizzes
	Identifying IT and how its responsible use improves our world in school and beyond.	Capturing and changing digital photographs for different purposes.	Creating and debugging programs, and using logical reasoning to make predictions.	Collecting data in tally charts and using attributes to organise and present data on a computer.	Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz

Computing Retrieval Questions

Year 3

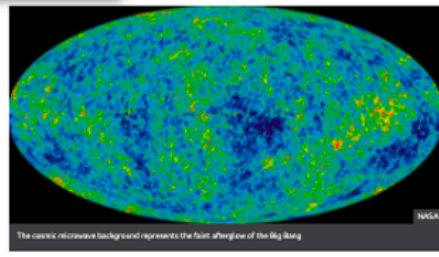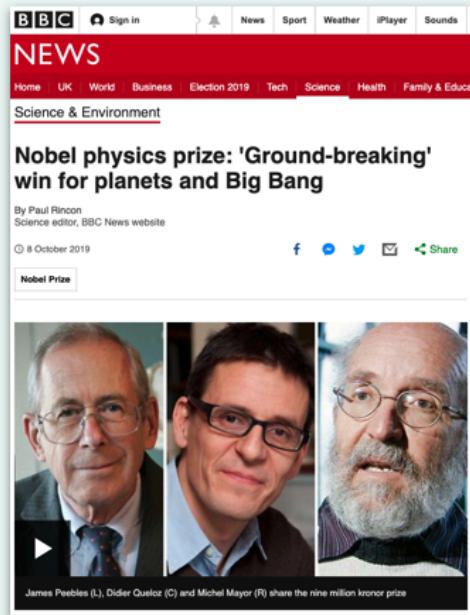| e safety	
Name at least 3 digital devices.	Examples could include laptop, mobile phone, computer game console, digital camera, hearing aids …
How do digital devices help us?	Ideas could include speed, efficiency, communication, share ideas, work / play with people a long way away, research, translation, enhance creativity …
Give an example of a time when it's better to use a non-digital tool rather than a digital device?	Examples could include - writing a personal greetings card by hand, playing with a friend in person rather than online gaming.
connecting computers	
What is a 'sequence'?	A pattern or process in which one thing follows another.
What is the difference between set of blocks 1… … and set of blocks 2 … ?	**Set 1** - these are individual blocks, one command per block **Set 2** - the blocks are joined together, so they make a **sequence.** To run all three actions in set 1, you would have to click three times (once on each block). When they're all joined together in a sequence (as in set 2), you only have to click once. After it has started, the sequence in set 2 should run without you having to click on the next instruction.

In a branching database, why is it important for the questions to be ordered carefully?	It may be difficult to find objects.
What is desktop publishing?	A method of creating documents (for a specific purpose) that include both text and images such as invitations, magazines, or newsletters using page layout software.
Who might use desktop publishing? Think of at least 3 examples.	Greetings cards companies Estate Agents Authors
What are some benefits of using desktop publishing?	Some examples: Speed Uniformity e.g font Professional appearance Ease of correcting errors Ease of sharing (can email quickly)
  Which code sequence is needed to draw the line shown above (the pencil is already down)? **A** **B** 	A can be ruled out if learners have understood that the pen is already down. The code in A will draw one line of 60 steps (50+10) followed by a space, so **B is the correct answer.**

Year 3	Connecting Computers	Stop-frame animation	Sequencing sounds	Branching databases	Desktop publishing	Events and actions in programs
	Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.	Capturing and editing digital still images to produce a stop-frame animation that tells a story.	Creating sequences in a block-based programming language to make music.	Building and using branching databases to group objects using yes/no questions.	Creating documents by modifying text, images, and page layouts for a specified purpose.	Writing algorithms and programs that use a range of events to trigger sequences of actions.

Computing Retrieval Questions

Year 4

e safety	
What is a router?	A **router** enables us to connect a network to the internet and to connect lots of networks together.
What is a website?	A website is a collection of pages, under one name eg The school website - www.manleypark.com www.bbc.co.uk
What is a web page?	A web page is a single page or document on the World Wide Web
Complete these sentences using the words below: The internet is connected by lots of _____. The _____ is part of the _____ where we can visit _____ and _____. **World Wide Web routers internet web pages websites**	The internet is connected by lots of **routers**. The **World Wide Web** is part of the **internet** where we can visit **web pages** and **websites**.

James Peebles (L), Didier Queloz (C) and Michel Mayor (R) share the nine million kronor prize

The cosmic microwave background represents the faint afterglow of the Big Bang

Here is an article appearing on a BBC News web page.

Who wrote the article? How do you know?

Who does the content belong to? How do you know?

Does any of the content belong to anyone else? Can you give an example?

- It was written by Paul Rincon, but the content is still owned by the BBC
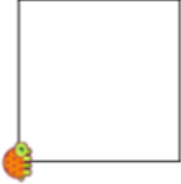
By Paul Rincon
Science editor, BBC News website

- The words are **owned by the BBC** — only they can change it

BBC   © 2021 BBC.

- The images are owned by other organisations, **they have been used with permission**

NASA

What advice would you give to someone who had never made a podcast before?	Responses could include: Ensure files are saved to the correct location - check and save at regular intervals Podcast needs to include these features: Clear voices Unwanted sounds removed Suitable music Suitable sound effects Intro section Main section Outro section
repetition in shapes - count-controlled loops **In Logo** . Following a 'pen down' command (PD), which of these code snippets would draw a square? A. REPEAT 3 [FD 100 RT 120] B. REPEAT 4 [FD 100 RT 90] C. REPEAT 4 [FD 90 RT 100] D. REPEAT 4 [FD 100 RT 45]	**B.** REPEAT 4 [FD 100 RT 90]
What is an input device?	Input devices allow data to be entered into a computer. Keyboards, mice, and microphones are all input devices.
What is a sensor?	A sensor is a type of input designed to allow computers to capture data from the physical environment. Sensors can be connected to a computer to capture data about temperature, light, sound, humidity, pressure, etc. A microphone can be used to record audio into a computer, or it can be used as a sound sensor.
What is a data logger?	A data logger is a digital device that can collect data over time and store it. Data loggers designed for education will usually have built-in sensors for light, temperature, and sound, as well as the option to connect external sensors.
# photo editing Jashan wants to email his cousin some photos showing Jashan's local park. He wants to edit the photos to remove the litter and graffiti. Jashan's friends have different opinions:	Responses could include: ●It's not honest to show his cousin the park differently to what it is actually like. The rubbish and graffiti is part of what their park looks like.

Tia thinks it is ok for Jashan to edit the photos before sending because the park doesn't look like that all the time and Jashan's cousin won't know.

Nick thinks Jashan should not edit the photos because it's pretending the park is different from how it is. This might make his cousin feel like the places they live are really different, but actually both places may have untidy parks.

Who do you agree with and why? Can you suggest any other reasons for your answer?

●It could be confusing if his cousin looks for more photos of the park online. If they find different photos to the one Jashan sent, how will they know which is correct?

●Jashan's cousin won't be able to tell that the photos have been edited. What he doesn't know won't hurt him.

●It's good to try and improve photos by editing them. Lots of people edit photos to make improvements — this is just the same.

●The litter and graffiti are not always there. Jashan is just changing the images so that they look like the park did when the bench and pavements were new. Jashan is correcting the mistake someone else made when they didn't keep the park nice and clean.

Repetition in games

Repetition is where actions or commands in programming are repeated (done again).
The repeating commands can also be called a 'loop'.

Repetition is where actions or commands in programming are repeated. The repeating commands can also be referred to as a 'loop'. Loops can be repeated indefinitely (known as 'infinite loops'), or for a set number of times (known as 'count-controlled loops').

What is the difference between an 'infinite loop' and a 'count-controlled loop'?						

Year 4	The internet	Audio production	Repetition in shapes	Data logging	Photo editing	Repetition in games
	Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.	Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	Using a text-based programming language to explore count-controlled loops when drawing shapes.	Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	Using a block-based programming language to explore count-controlled and infinite loops when creating a game.

Computing Retrieval Questions

Year 5

e safety	

systems and searching
 	
Which of these search terms would be likely to return the fewest results?
 	
    A.   Car
 	
    B.   Red car
 	
    C.   Red sports car
	C. Red sports car
	
	The more specific the search term, the fewer results will be returned. 'Car' is the most general of the three options and would return the most results, followed by 'red car' and then 'red sports car'.

video production What advice would you give to somebody who has never produced a video before? What do they need to think about?	Answers to include reference to these aspects: plan - what is your video going to be about? storyboard script edit reshoot check audio is clear check images shot match storyboard / plan
How could you share a video you have produced with others?	- Upload to a video sharing site (represented by the YouTube logo) – explain that they could, with the appropriate permissions, upload their video to a sharing site. Ask learners to consider whether they should share a video that includes other people on such a site. - By email – explain that their video could be emailed, although it is likely to be quite a large file. Instead, they could upload it to a video sharing site and share a link.

	● By Bluetooth – if their device has Bluetooth, they could share with other devices that also have Bluetooth. ● Using a portable storage device – their video could be downloaded to a portable storage device and viewed on any device with a USB interface.
selection in physical computing What is a 'condition-controlled loop'?	A condition-controlled loop is a form of repetition in which a set of commands stop being carried out when a condition is met. The condition could be anything from when the 'score' in a game reaches a certain value to when a key on a keyboard has been pressed.
What is a 'program'?	A program is **an implementation of an algorithm**. It can also be defined as 'a set of instructions that a computer follows in order to perform a particular task'. When a program does not produce the required output, the algorithm should be debugged. This should then be implemented in the program.
What is 'selection' in physical computing?	Selection is "**part of a program where, if a condition is met, then a set of commands are run**". Selection is implemented in programming using `if...then...` statements. Selection is used to control the flow of actions in algorithms and programs by checking if a condition has been met. If it has been met, the identified actions will be carried out. When selection is used in programs, loops often have to be used to instruct the device to check the condition repeatedly. Without using loops, the condition would only be checked once. It's important to understand that each loop cycle will complete before the condition is checked again. In the Crumble programming software, selection is implemented through the `if...then...` command block.

flat-file databases

Add the missing term to complete this sentence:

Computer databases allow us to organise, _____, and sort data.

      A. measure
      B. search
      C. field

Computer databases allow us to organise, **search**, and sort data.

B is correct, showing that learners understand that a computer database allows data to be searched. Answer A suggests that learners do not understand that a flat-file database contains a dataset which can be searched, sorted, and graphed. Answer C suggests learners have recognised a term related to databases but misunderstood what it means.

Name	Type of Dinosaur	Geologic Time Period	Date of existence (mya)	Where they were found	Length (m)	Diet	Type Species
Aardonyx	Sauropod	Early Jurassic	199-189	South Africa	8	Herbivorous	celestae
Abelisaurus	Large Theropod	Late Cretaceous	74-70	Argentina	9	Carnivorous	comahuensis
Achelousaurus	Ceratopsian	Late Cretaceous	83-70	USA	6	Herbivorous	horneri
Achillobator	Large Theropod	Late Cretaceous	99-84	Mongolia	5	Carnivorous	giganteus
Acrocanthosaurus	Large Theropod	Early Cretaceous	115-105	Canada, USA	12	Carnivorous	atokensis

Here is the table view of a database. We want to answer the question:
'How long is the longest dinosaur?'
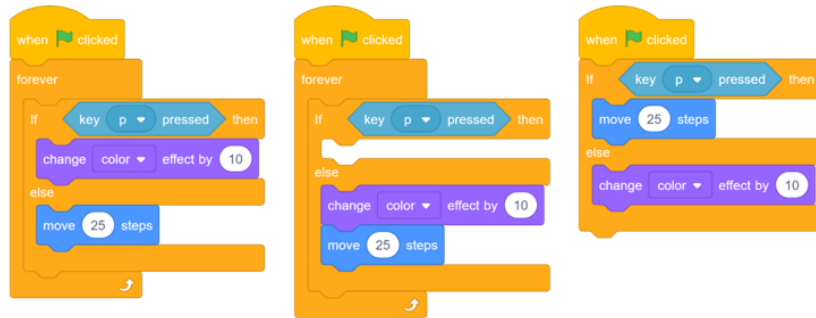Which **field** would we use to answer it?

      A. Name
      B. Diet
      C. Length
      D. 12

The correct answer is C. Length.

Choosing answers A and B indicates misconceptions around how the data is organised in the database. Answer D shows the answer to the question, but not which field was used to find it. To know that 12 is the answer, the whole field must first be reviewed.

Intro to vector graphics What are 'vector drawings'?	Vector drawings are created using **shapes and lines**. In vector drawings, all these shapes and lines are called **objects**. Within vector drawings, each object is created using a new **layer**. These can be rearranged using the menu tool, which allows the objects to be sent backwards and forwards (one at a time) or sent to the back or front. Objects within these programs can be **grouped**, which enables the objects to be treated as though they are a single object. It is important to recognise that although they act as though they are a single object, grouped objects are still a number of individual objects. Show awareness of **how digital images can be made**. This could be using shapes and lines in a vector drawing, or using pixels in a freehand paint program.

Drawings on a computer

Painted drawing

- Can freehand draw anything (not just shapes)
- Can erase part of a shape (not just the whole thing)
- Cannot move different parts to different layers
- Can only move whole areas, not individual parts

Vector drawing

- Can only draw using _____ and _____
- Can delete individual _____
- Can move _____ to different _____ on the drawing
- Can move individual, _____, or _____ objects

Complete these statements to explain some features of vector drawing.

Vector drawing

- Can only draw using **shapes** and **lines**
- Can delete individual **objects**
- Can move **objects** to different **layers** on the drawing
- Can move individual, **selected**, or **grouped** objects

Programming B **Selection in quizzes**	A. is the correct answer because an infinite loop has been used so that the condition is repeatedly checked and the appropriate outcome carried out. In the second program, although an infinite loop has been used, there is no outcome to be carried out when the condition is true. In the third program, an infinite loop has not been used, so the condition will only be checked once, and

In which of these 3 programs will there be an outcome every time 'p' is pressed?

therefore the outcome will not be carried out every time the key is pressed.

Year 5	Systems and searching	Video production	Selection in physical computing	Flat-file databases	Introduction to vector graphics	Selection in quizzes
	Recognising IT systems in the world and how some can enable searching on the internet.	Planning, capturing, and editing video to produce a short film.	Exploring conditions and selection using a programmable microcontroller.	Using a database to order data and create charts to answer questions.	Creating images in a drawing program by using layers and groups of objects.	Exploring selection in programming to design and code an interactive quiz.

Computing Retrieval Questions

Year 6

e safety	

Communication and Collaboration
 	
All data transferred over the internet is broken down into …
 	
    A. Protocols
    B. Packets
    C. Addresses
	B. Packets
	
	Protocols are an agreed method of communication. In the physical world, you can relate protocols to languages.
	
	Addresses are needed for packets to reach their destination, but they are contained in the header of a packet.
	
	The data is broken down and included in the data payload of a packet.

Harris wants to publicly share a piece of writing about a school trip. Which method of communication should he use and why?
 	
  A. Blog post
  B. WhatsApp
  C. SMS
	A. Blog post
	
	WhatsApp and SMS are both private methods of communication typically used to share short messages and/or images. Blog posts are better suited to sharing longer pieces of writing with many people.

Webpage Creation Copyright If you want to use someone else's work (e.g. a photo you have found online to use on your own website) what should you do?	You should: ● Ask permission ● Give credit to the person who made it ● Buy it — if it has a cost attached (e.g. from an online resource library)
Webpage Creation Fair Use Sometimes it is possible to copy part of someone's work. For example, if you are using part of someone's content e.g. a picture for your school work — then that's ok. School children are not expected to pay for images they find online BUT... You just have to remember ... ?	Answers to include: ●You can only use part of the work ●You can't make money from it ●It needs to look completely different in your piece of work than in the original piece ● You must credit the owner of the original work / photo

Programming A
Variables in Games
 	
Which of these are important features of a variable? Tick all that apply.
 	
  A. Can be set
  B. Is a score
  C. Can be changed
  D. Has a clear name
	Which of these are important features of a variable? Tick all that apply.
	
	  ✓ Can be set
	
	  ❏ Is a score
	
	  ✓ Can be changed
	
	  ✓ Has a clear name
	
	The three correct features of a variable are that it can be set, it can be changed, and it should be named. A score is an example of what a variable might be used for, but there are also many other places in a program where they could be used.

In a bat and ball game, which of these parts of the game would be stored using a variable? Tick all that apply. a. Points scored b. Movement of the sprite c. Lives lost d. Time left e. Appearance of the Stage	In a bat and ball game, which of these parts of the game would be stored using a variable? Tick all that apply. ✓ Points scored ❏ Movement of the sprite ✓ Lives lost ✓ Time left ❏ Appearance of the Stage This question assesses learners' understanding of aspects of a program that can be set and changed with variables. 'Points scored', 'lives lost', and 'time left' are all variables that learners have explored during this unit. The movement of a sprite is achieved using a simple code sequence and does not involve a variable. The appearance of the Stage is a design choice, which is not linked to any of the programming constructs.
Imagine that you are storing the score of a football match using a computer program to display to the crowd during the game. Which name would be the best choice for the variable that holds the score of the home team? 1. Home score 2. Home_score 3. Football_match_home_team_score 4. Score	**Home_score** Learners who choose answer A have not recalled that the name of a variable should not include a space. Learners who choose answer C have chosen the most detailed answer, but this would be too long to be practical in a project. Answer D does not differentiate between the home team's score and the away team's score. The best answer is B, which is brief, does not include any spaces, and contains enough information for the variable to be identified.
Introduction to spreadsheets Which of these statements are true about spreadsheets? (Tick all that apply) A. When using formulas with cell references, changing one cell can change another. B. Calculations can be used on any data type in a spreadsheet	Which of these statements are true about spreadsheets? (Tick all that apply) ✓ **When using formulas with cell references, changing one cell can change another** ❏ Calculations can be used on any data type in a spreadsheet

C. Data can be calculated using different operations within the spreadsheet D. Charts can be produced using the data held in spreadsheets	✓ **Data can be calculated using different operations within the spreadsheet** ✓ **Charts can be produced using the data held in spreadsheets** Statements A, C and D are correct. Statement B suggests that learners do not recognise that certain data types cannot be used in calculations. For example, a word cannot be multiplied by a number in a spreadsheet.

Which of these would make suitable column headings in a spreadsheet for a local supermarket? (Tick all that apply)
 	
    A. Cost
 	
    B. £4.62
 	
    C. Apples
 	
    D Item
	Which of these would make suitable column headings in a spreadsheet for a local supermarket? (Tick all that apply)
	
	✓ **Cost**
	
	❏ £4.62
	
	❏ Apples
	
	✓ **Item**
	
	The correct answers are cost and item. The other two answers could be found in a spreadsheet for a local supermarket, but they would be the data in a spreadsheet, rather than a data heading. This shows that learners are unsure about the role of data headings in organising data.

3D modelling When evaluating a 3D model, what do you need to consider?	evaluating your model - include these aspects: ●Do the dimensions need modifying? ●Are the parts of your model in proportion to each other? ●What extra detail could you add to your model? ●How else could you improve your model?

Programming B Sensing Movement What does the term 'input' mean? What is an 'input device'?	Input is data that is sent to a program to be processed An input device is a piece of hardware used to control, or send data to, a computer

Year 6	Communication and collaboration Exploring how data is transferred by working collaboratively online.	Webpage creation Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.	Variables in games Exploring variables when designing and coding a game.	Introduction to spreadsheets Answering questions by using spreadsheets to organise and calculate data.	3D modelling Planning, developing, and evaluating 3D computer models of physical objects.	Sensing movement Designing and coding a project that captures inputs from a physical device.