

Activity	Instruction	Support	Stretch
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### Whodunnit?



Abstraction Logic



Pupils work in pairs to create a classic Whodunnit quiz.  
 Give each pair 6 characters e.g. toy characters, animals etc.  
 Pupils choose the character 'Whodunnit' and then have to create closed quiz questions (yes or no answers only) to identify from the 6 possible characters the one 'Whodunnit'.  
 Pupils should record their work, test out their quiz questions and debug them if they don't lead to the correct suspect!  
*You will also need 6 characters for each pair of pupils.*

Use 2 or 3 characters/ objects/animals only and use images to support the activity.

Can pupils record their work in a decision tree diagram?

### Our arrival algorithm



Algorithms Decomposition

Can pupils write an algorithm to describe how they will arrive at school? Follow the algorithms to test them. Are some of the algorithms more effective than others? Why is this? Can pupils improve their algorithms?

Pupils could 'walk through' the algorithm as they create it.

Explore whether pupils' algorithms would have to vary depending on the number of pupils arriving at once.

### PE mini-drills



Algorithms Decomposition Evaluation



Pupils create a number of different PE 'mini-drills' using a limited range of resources. They create an algorithm for these so other pupils can follow them, this might be in the form of a simple flow chart. They can test and debug their algorithm to ensure it is clear and precise. Pupils follow and evaluate each others' mini-drills.  
*You will also need PE equipment.*

Provide pupils with an example mini drill which they can modify.

Can pupils combine several of the mini-drill algorithms to create a longer programme?

### Our rainbow garden



Decomposition Evaluation Pattern



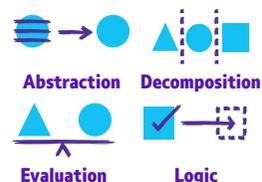
Can pupils create a design for a flower bed inspired by rainbows which have become a symbol of hope.  
 Lead a discussion to come up with a success criteria for the designs, such as: brightly coloured, uses colours of the rainbow, interesting patterns.  
 Pupils should decompose their design into different areas, using patterns to create an attractive design.  
 Pupils can evaluate their own and other's designs against the success criteria.  
 Depending on your schools' facilities you may be able to go on to plant the flower bed.

Provide pupils with example designs which they could use as inspiration.

Can pupils make their designs more complex through more intricate patterns?

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### Text transfer



Pupils have to get a passage of text (perhaps a paragraph from a favourite book) across the room as quickly as possible. Start with a group at one end of the room writing out the text (without the rest of the class knowing what the text is). The aim is for this text to be written by a group across the opposite side of the room.

Pupils discuss how they can quickly transfer the message, such as shouting a word at a time, taking it in turns to speak, quickly stating letters, holding up words individually, saying the first and last letters of each word to see if it can be guessed, etc.

Pupils experiment with each suggested technique to see which is most effective by timing how long it takes to transfer the text. Pupils refine their chosen technique to make it faster and more accurate. This activity encourages pupils to make comparisons with transferring data packets across the Internet.

*You will also need a stop watch.*

Simplify the message and options for sending.

Include some error checking in the text transfer (e.g. checking spellings in a dictionary).

### Collab-ART



Collaboration

Flexible learning

Challenge pupils to collaborate during spare pockets of time to work on a piece of art together. They could each create tiles which are brought together to form a class art piece, or, inspired by Jackson Pollock, take turns flicking paint from the colours of the rainbow across a huge sheet of paper!

*You will also need painting materials.*

An additional adult could support less confident pupils.

Can pupils spot patterns in their artwork?

### Hide and seek



Logic

Flexible learning

Two pupils each have a 10 x 10 grid with labelled axis (e.g. A-J horizontally and 1-10 vertically). They colour in 10 sets of blocks that cover two adjacent squares, either horizontally or vertically in their grid. They take it in turns to call out a coordinate (A,3) to try to find their opponents coloured blocks. The winner successfully locates all 10 of their opponents blocks before their own are revealed.

*Download of grid available.*

Pupils use a 5x5 grid.

Can pupils explain their reasoning behind where they choose to strike?

### You've got a friend in me



Pattern Collaboration

Flexible learning

Listen to a selection of songs about friendship, such as 'Lean on Me' by Bill Withers or 'You've Got a Friend in Me' by Randy Newman.

Can pupils decompose the songs into chorus and verses? Challenge small groups of pupils to write an additional verse using the pattern of melody or rhythm from the song? Groups can then perform their verses to the class.

By combining each groups' verse you now have your own class song about friendship which could be performed to the rest of the school.

Mixed ability groupings can be used to support less confident pupils.

Can pupils recognise other patterns in the songs? In the language choices or number of syllables in each line for example?