



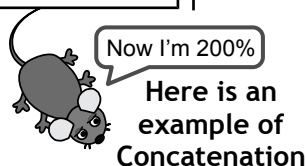
**The 10 Lessons (on 20 Cards)
Objectives & Maths Labels**

Lesson 1: Cards 1, 2	Move Horizontally or Vertically Spatial Awareness: Orientation Code Skill: Point in direction
Lesson 2: Cards 3, 4	Scratch Skill: Colour-a-Sprite Code a Sprite to talk (speech balloon) Code Skill: Think & talk
Lesson 3: Cards 5, 6	Turn with Arrow Keys Spatial Awareness: Size, Rotation Code Skill: Shrink a sprite with code
Lesson 4: Cards 7, 8	Count in Multiples Number: Create a Scratch Variable Code Skill: Slider Mode variable
Lesson 5: Cards 9,10	Scratch Skill: Draw a line sprite Spatial Awareness: Rotation of Angles Code Skill: Repeat rotate
Lesson 6: Cards 11,12	Get Creative with the sprite's pen Number: Informal use of percentage Code Skill: use the Colour Spectrum
Lesson 7: Cards 13,14	Ask a Question & Input an Answer Numeracy: Objective Testing: Sums Code Skill: Code User Input
Lesson 8: Cards 15,16	Move with Arrow keys Spatial Awareness: Direction Code Skill: Point towards a sprite
Lesson 9: Cards 17,18	Code 7 keyboard keys Shape: Squares in copybook and code Code Skill: Code the pen Up and Down
Lesson 10: Cards 19,20	Complete the Symmetry Shape: Make triangles and squares Code Skill: Join coordinate points

Maths Labels Aligned to the Flip-Cards

NUMBER::	Cards: 7, 8, 13, 14
SPATIAL AWARENESS:	Cards 1, 2, (9,) 10, 15, 16,
SHAPE:	Cards 17, (18,) 19, 20
LOGICAL REASONING:	Cards 13, 14
Scratch GRAPHIC EDITOR SKILLS:	Cards: 3, 4, 9, 11, 12

You want to make the mouse say what's in the speech balloon. `mouseSize` is a variable, which is number data. Here the `mouseSize` variable has a value of 200.



**COMPUTATIONAL THINKING CONCEPTS
for 8-9 Year Olds using SCRATCH CODE**

When it comes to Scratch, Computational Thinking can be described as the learning and development that takes place with Scratch. In their definition, the developers of Scratch see it as a set of concepts, practices and perspectives. The concepts can be listed as: **sequences, loops, parallelisms, events, conditionals, operators** and **data**. For 8-9 year olds all the computational thinking concepts can be identified with a colourful code block in one of the Scratch palettes. The concepts are listed showing where they are used during the lessons.

(Card Numbers in brackets)

- Sequence** Move (1, 2), Rotate (6, 10),
set Position (1, 2, 19, 20), set Direction (1, 2, 20),
set Visibility (11, 12),
Report (with variable: 7, 8, 13, 14),
Pen (11, 12, 17,18,19, 20),
Set/Change Size (2, 5, 12, 16, 17, 19),
Set/Change Effects (6),
Set Layer (6)
Pause (5, 18, 19),
Stop (13, 14),
Speech (4, 13, 14),
User Input/ Output (13,14),
Code an Algorithm (10, 18, 19, 20),
Sound (5),
Forever loop (1, 2, 8, 11, 15, 16),
- Loops** Repeat loop (5, 6, 7, 10,)
- Flag click:** (all cards)
- Events** Sprite click (4, 5, 13, 14)
Key press (6, 8, 10, 16, 17, 18, 19, 20)
Seven different keyboard keys coded
Flag clicked:
- Parallelism** triggering simultaneous events x2, x3 (15, 16)
If/Then/Else (11, 13, 14):
- Conditionals** If <mouse down> (11),
If <correct input> (13, 14)
Arithmetic operators: +, -, x, equality (13, 14),
- Operators** join, pick random
- Data** Variables: Make, Set, Change (7),
Min & Max (8) of variable slider readout
Concatenate* (8)

* to Concatenate means: to join together non-number data and number data.

