Year 6 Maths

Developing/ Expected/ Greater depth activity

Lesson 1

LO: TBAT complete a code breaking task using the letters of the alphabet.

Task: This week you will be trying to solve a murder mystery.

Success Criteria:

1.	Read the task.
2.	Write all the letters of the alphabet with their corresponding numbers.
3.	Solve the questions.

2D and 3D Shapes
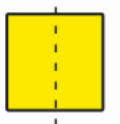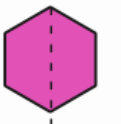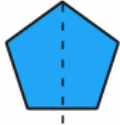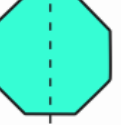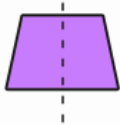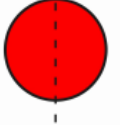
Types of Lines

Vertical Lines Of Symmetry

Year 6 Maths

Main activity

Task 1	Task 2	Task 3
Problem solving	**Arithmetic**	**Project**

Task 1

Problem solving

Use money amounts to solve the following questions.

Q1.
Lake School collected 10p coins for charity.
They raised £31.50

How many 10p coins did they collect?

Q2.
Annie has a £2 coin.

Sam has these coins.

How much **more** money does Annie have?

Q3.
Annie has collected 10p coins.
They are worth £10.

How many 10p coins does Annie have?

Task 2

Arithmetic

| 25	$\begin{array}{r} 476 \\ \times\ \ 83 \end{array}$
26	$\dfrac{2}{3} + \dfrac{5}{12} =$
27	$\dfrac{5}{8} \times 9 =$
28	$\begin{array}{r} 3678 \\ \times\ \ \ 29 \end{array}$
29	$42.3 \div 5 =$
30	$36 \overline{)7521} =$
31	$\dfrac{5}{4} - \dfrac{5}{6} =$

Task 3

Project
Murder mystery

Murder Mystery 1

The police are called to a health spa. Lying on the floor is the body of a murdered guest. As police search the spa, they find 5 clues written down by witnesses. They have sent the clues to you to decipher.

They also provide a list of all those present at the health spa when the murder was committed.

There are 32 suspects. Each clue will eliminate half the number of suspects remaining. When all clues have been solved the identity of the murderer will be revealed.

Task below.

The Suspects

Forename	Surname	Sex	Right / left	Usually wears hat	Hair	Driver ?	Guilty
Coutney	Brown	F	Right	Yes	Dark	No	
Sarah	Perkins	F	Right	Yes	Fair	No	
Callum	Rogers	M	Right	Yes	Dark	No	
Simon	Temple	M	Left	No	Dark	Yes	
Greta	Harrup	F	Right	No	Dark	Yes	
Sally	Fisher	F	Left	No	Fair	No	
Frank	Beech	M	Left	Yes	Red	Yes	
Chelsea	Bridges	F	Left	Yes	Red	Yes	
Orla	Smith	F	Right	No	Red	Yes	
Tim	Garner	M	Right	No	Red	No	
Ruth	Jameson	F	Left	Yes	Dark	Yes	
Mark	Hitchkins	M	Right	Yes	Dark	Yes	
Carol	Smithkins	F	Left	Yes	Dark	No	
India	Jones	F	Left	No	Dark	No	
Tom	Walker	M	Right	No	Dark	Yes	
Charlotte	Twiddle	F	Left	Yes	Fair	No	
Chardonay	Hogg	F	Right	Yes	Dark	Yes	
Abdirahman	Mustafa	M	Left	Yes	Fair	No	
Becky	Sands	F	Right	No	Fair	No	
James	Wren	M	Left	Yes	Dark	Yes	
Saskia	Riggles	F	Right	No	Dark	No	
Harry	Pitcher	M	Right	No	Fair	No	
Jack	Turnip	M	Right	No	Dark	No	
Jake	Griggle	M	Left	No	Red	Yes	
Fiona	Gibson	F	Left	No	Dark	Yes	
Faisal	Iqbal	M	Right	Yes	Red	Yes	
Sam	Sprat	M	Right	No	Fair	No	
Ian	Dent	M	Left	No	Fair	No	
Jim	Begler	M	Left	Yes	Dark	No	
Amina	Khan	F	Left	No	Red	Yes	
Gavin	Redrup	M	Left	No	Dark	No	
Beth	Walters	F	Right	Yes	Red	Yes	

Q4.

Ben has 2 types of coin in his pocket.

He has 4 coins of one type and 2 coins of another type.

Altogether he has £1

What two types of coins does he have?

Ben has 4 [P] coins and 2 [P] coins.

Clue 1 – Get into shape.

The answer to each question is a number. The number needs to be changed into a letter from the alphabet. A= 1, B=2 etc.

1. Total number of sides of 5 squares
2. An octagon has ___ sides
3. A square based pyramid has ___ vertices
4. The total sides of a triangle, square and a hexagon
5. The total sides of an octagon, a heptagon and a hexagon
6. The total sides of 2 nonagons
7. A rhombus has ___ sides
8. A pentagon has ___ sides
9. Total sides of an octagon and a decagon
10. Half the number of sides of a decagon
11. The number of sides in a triangle multiplies by the number of sides in a hexagon
12. A parallelogram has ___ sides
13. Total sides of 3 hexagons
14. The number of sides in one equilateral triangle, one right angle triangle, one isosceles triangle and two scalene triangles.
15. The number of right angles in 2 squares and 2 rectangles
16. Total sides of 4 rectangles
17. Number of lines of symmetry in a regular pentagon
18. Number of sides of a trapezium
19. Number of lines of symmetry in a kite
20. A cube has ___ vertices
21. Number of sides a circle has
22. The total sides of 4 pentagons