Year 6 Maths

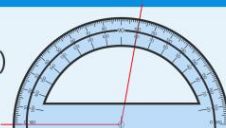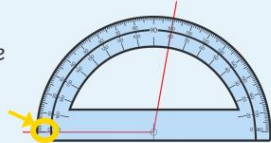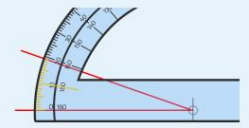**Developing/ Expected/ Greater depth activity**

Lesson 2

LO: TBAT complete a code breaking task using a protractor to measure angles.

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

Success Criteria:

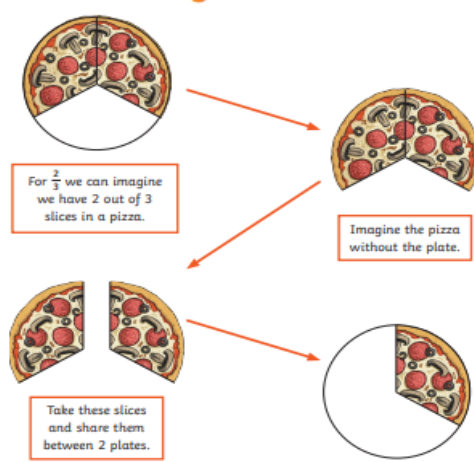|	
1.	Read the task.
2.	Use a protractor to measure the angles.
3.	Find the corresponding letters to the measurement of degrees.

How To Use a Protractor

1 Place the cross or circle at the point (vertex) of the angle that you are measuring.

2 Read from the **zero** on the outer scale of your protractor.

3 Count the degree lines carefully.

Dividing Fractions by a Whole Number Visual

$$\frac{2}{3} \div 2 =$$

For $\frac{2}{3}$ we can imagine we have 2 out of 3 slices in a pizza.

Imagine the pizza without the plate.

Take these slices and share them between 2 plates.

We can see that each plate now has a $\frac{1}{3}$ of the original pizza.

Fractions
Division by whole numbers

The Problem:

$$\frac{2}{3} \div 2$$

Step 1

$$\frac{2}{3 \times 2} = \frac{2}{6}$$

Multiply the denominator by the whole number.

Step 2

$$\frac{2}{6} = \frac{1}{3}$$

Simplify the fraction to its simplest terms.

Year 6 Maths
Main activity

Task 1	**Task 2**	**Task 3**

Problem solving
Use division of fractions to solve the following questions.

Q1.
Five children shared 4 packs of sweets equally.

What fraction of a packet did they each receive?

Q2.

Annie ate $\frac{1}{4}$ of a cake.

Four other children shared the remainder equally.

What fraction of the cake did each of the other children get?

Q3.
Complete the number sentences.

$$\frac{3}{4} \div \boxed{} = \frac{3}{12}$$

$$\boxed{} \div 5 = \frac{2}{13}$$

Arithmetic

32	$5\% = \frac{?}{20}$
33	42% of $90 =$
34	$\frac{6}{7} \div 2 =$
35	$0.6 = \frac{?}{20}$
36	$3\frac{1}{8} - \frac{1}{4} =$
37	$2\frac{2}{5} \times 4 =$

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.

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	Yes	
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	Yes	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	

Task below.
Look at the mystery from an angle.
In this clue 10 degrees = a, b = 20 degrees, etc.

Canonbury Home Learning

Q4.

How many halves are there in 15?

Clue 2—Look at the mystery from a new angle!
In this clue, the 10° = a, 20° = b, etc.