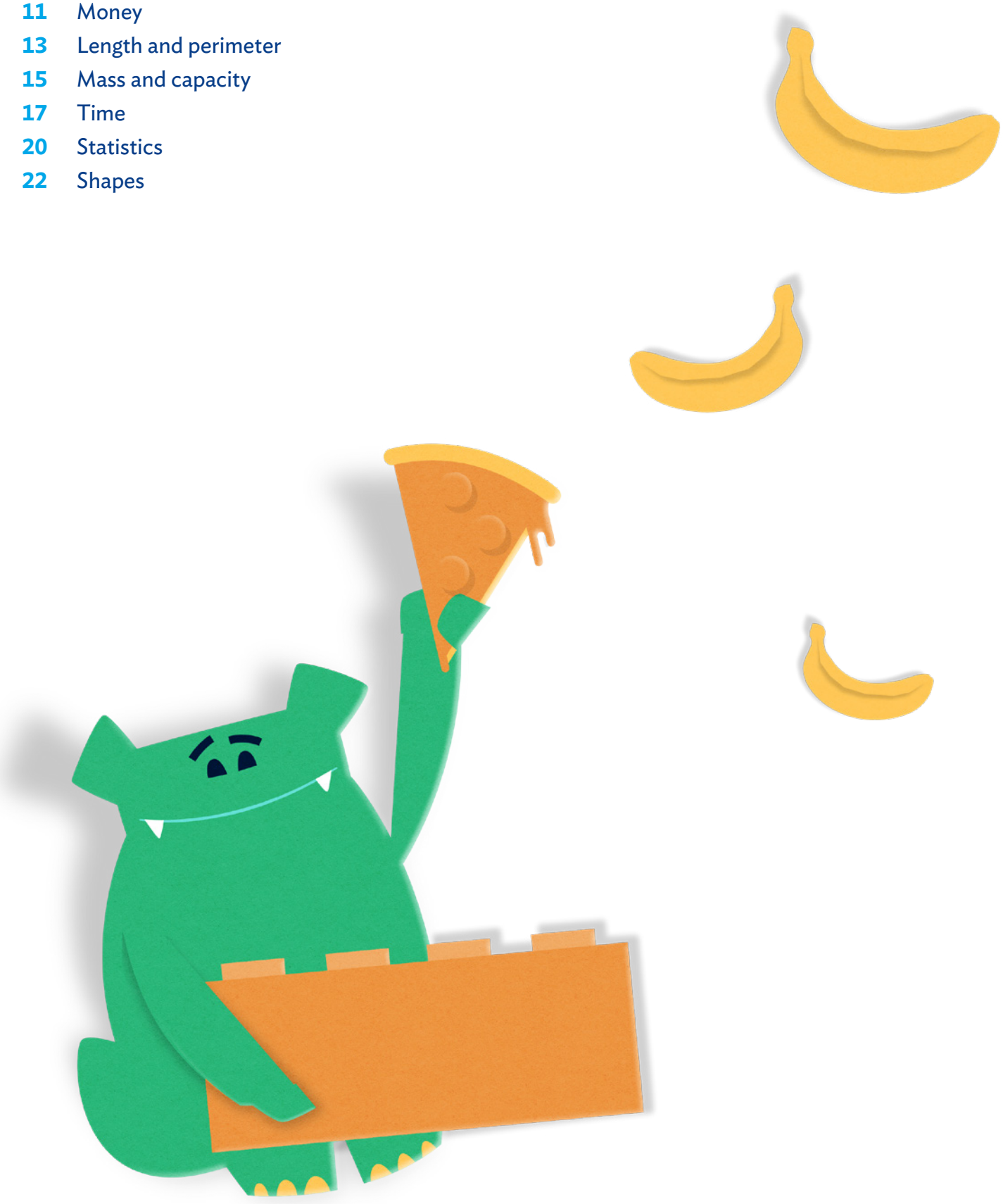
Coventry Counts

Year 3 teacher guide

COVENTRY Building Society

What's inside



Year 3 - Place value

This activity links with the following objectives within the national curriculum.

- Find 10 or 100 more or less than a given number.
- Recognise the place value of each digit in a 3-digit number (100s, 10s, 1s).
- Compare and order numbers up to 1,000.
- Read and write numbers up to 1,000 in numerals and in words.

Activity

The children need to work in groups of 3 to 6 to create a poster of the 6 people who set the fastest land speed record times. The activity will involve children solving problems using the skills developed in the place value unit.

Time for activity

Approx. 20 minutes

Delivery notes

Resources:
Year 3 Place value worksheet
A3 card
Pencil
Rubber
Colouring pencils
Scissors
Glue

Lesson plan

In this activity the children imagine they're working in the marketing team at the Transport Museum to create a poster of the people who've set the 6 fastest land speed record times.

Start the session by asking the children about whether they've been to the Transport Museum. In the museum there's an exhibition on land speed records and you can see some of the cars that broke the record.

Then explain the activity: Children are to work in teams of 3 to 6. They need to create a poster which shows the 6 people who've set the fastest land speed record times. To do this they need to complete 5 tasks which involve using the skills developed in the place value unit.

Suggested discussion points

- Have they been to the Transport Museum?
- What do they know about the land speed record?
- Do they know any vehicles or people who have broken the land speed record?

Optional extension activity

Investigate seas, air and rail records and answer questions relating to these records.

Answers

NB: Information correct as at 19 January 2021.

Position	Driver	Vehicle	Speed	Speed in words
1	Andy Green	Thrust SSC	763	Seven hundred and sixty-three
2	Richard Noble	Thrust 2	633	Six hundred and thirty-three
3	Gary Gabelich	The Blue Flame	622	Six hundred and twenty-two
4	Craig Breedlove	S of A Sonic 1	601	Six hundred and one
5	Art Arfons	Green Monster	577	Five hundred and seventy-seven
6	Tom Green	Wingfoot Express	413	Four hundred and thirteen

Task 5

1. Just under 40mph
2. 523mph
3. 204mph

Optional extension activity

1. Speed set was 6,416mph on 29 April 2003.
2. The fastest helicopter speed is set at 249mph. The record was set by John Egginton in a vehicle called Westland Lynx 800 G-LYNX on 11 August 1986.
3. Ken Warby set the water speed record in the vehicle Sprit of Australia on 8 October 1978 with a speed of 318mph.

Year 3 - Calculations, addition and subtraction

This activity links with the following objectives within the national curriculum.

- Add and subtract numbers mentally, including:
  - a three-digit number and 1s
  - a three-digit number and 10s
  - a three-digit number and 100s.
- Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction.
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Activity

Children work in groups of 2 or 3 using the skills developed in the addition and subtraction unit to see if they can be the first to find the gems which have been hidden somewhere in the cathedral.

Time for activity

Approx. 20 minutes

Delivery notes

Resources: Year 3 Calculations, addition and subtraction worksheet
Pencil
Rubber
Paper

Lesson plan

In this activity the children work in groups of 2 or 3. They imagine they're archeologists that have found a note which states that some valuable gems have been buried under old St Michael's Church. The note contains addition and subtraction questions, which when solved will tell them which room the treasure is buried in. Who will get there first?

Start the session by discussing the cathedral, see some discussion points below.

Then explain the activity: Children are to be split into groups of 2 or 3. They're to imagine they're archeologists who've found a note from a long time ago that says some gems have been buried under old St Michael's Church. They need to work quickly as a team to solve the puzzles which will tell them in which room the gems are buried. The aim is to be the first team to find out in which room the gems are buried, this team will get to say the answer. Let all the other teams finish before the winning team says their answer.

Suggested discussion points

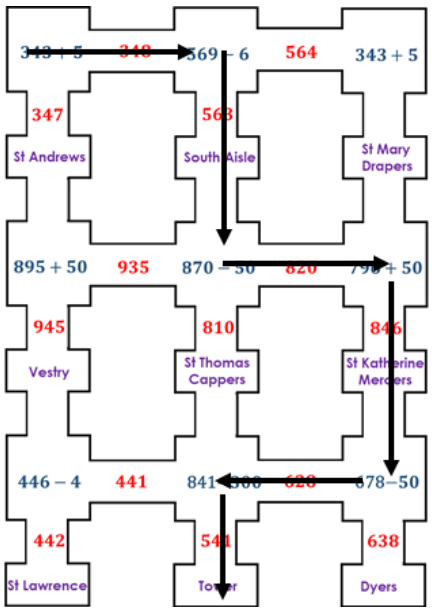
- **There are three cathedrals:** St Mary's Priory, St Michael's Cathedral first structure and second structure.
- **St Michael's Cathedral was bombed in the Second World War:** The ruin is still here today the second structure was built after the Second World War.

Optional extension activity

They are to create a timeline of the history of Coventry.

Answers

Puzzle 1



Puzzle 2

1. Total 574
   5+7+4=16, 1+6=7
2. Total 222
   2+2+2=6
3. Total 761
   7+6+1=14, 1+4=5
4. Total 475
   4+7+5=16, 1+6=7
5. Total 724
   7+2+4=13, 1+3=4
6. Total 526
   5+2+6=13, 1+3=4

Puzzle 3

1. 267
2. 589
3. 109

The gems are buried in room 8 the Dyers.

Optional extension activity

1043 - Leofric and Godiva endowed the monastery in Coventry

1225 - St Mary's Cathedral was completed

1342 - Started to build St Mary's Guildhall

1355 - Started building the City wall

1433 - Started building St Michael's Spire

1545 - St Mary's Priory was demolished

1662 - City wall was demolished

1962 - New cathedral was built

1987 - Coventry City Football Club win the FA cup

Year 3 - Calculations, multiplication and division

This activity links with the following objectives within the national curriculum.

- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
- Solve problems, including missing number problems involving multiplication and division, positive integer scaling problems and correspondence problems in which 'n' objects are connected to 'm' objects.

Activity

Children work in groups of 2 or 3 using the skills developed in the multiplication and division unit to see if they'll be the first to crack the code to find out when the Germans will bomb Coventry.

Time for activity

Approx. 20 minutes

Delivery notes

Resources: Year 3 Calculations, multiplication and division worksheet
Pencil
Rubber
Paper
Bell or whistle

Lesson plan

In this activity the children imagine they're working as secret agents to try and crack the code to when the Germans are planning to bomb Coventry.

Start the session by asking the children whether they've visited the War Memorial Park and why it's there? Then discuss about how the Second World War affected Coventry and explain that during the war people were employed to try to crack messages sent between the Germans. See the suggested discussion points.

Then explain the activity: Children are to be split into groups of 2 or 3. They need to work quickly as a team to solve the problems to determine the time and date the Germans plan to bomb Coventry. The aim is to be the first team to crack the code and ring the bell. The team who rings the bell first can say the answer. Let all the other teams finish before the winning team says their answer.

Suggested discussion points

Why is the War Memorial Park there? The War Memorial Park was opened in July 1921 as a tribute to the people of Coventry who died in the First World War. In the park is the war memorial monument and inside it is a room called the chamber of silence which contains the roll of the fallen, which is a list of all Coventry men killed in the two world wars and the Gulf War.

How was Coventry affected by the Second World War? The war took place between 1939 and 1945. From August 1940 they began to bomb Coventry destroying many buildings including the cathedral. There were several bombings. The most severe bombing is the date the children will find out once they complete the activity.

How did the British crack messages sent between the Germans? During the war people worked at Bletchley park to try and find out how German Enigma operators tried to keep their messages secret, how they sent them and how the codebreakers listened to the messages. Alan Turing and others built the Enigma machine which turned out to be a crucial help in the effort to win the war.

Optional extension activity

Use the internet to find out about the Morse code. Can you find the Morse code and translate the message at the end of this activity?

Answers

Clue 1

3×7=21

33÷3=11

3×8=24

3×4=12

6÷3=2

3×3=9

36÷3=12

8×6=48

8×3=24

56÷8=7

16÷8=2

9

18

96

5

2

Clue 2

392 (3+9+2=14)

68 (6+8=14)

280 (2+8+0=10)

240 (2+4=6)

14 (1+4=5)

18 (1+8=9)

Clue 3

1. 11
2. 12
3. 11
4. 40

The answer to the code

Quarter past eight on 14 November.

Optional extension activity

Sam is a spy.

Year 3 - Fractions

This activity links with the following objectives within the national curriculum.

- Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.
- Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
- Add and subtract fractions with the same denominator within one whole.

Activity

The children work individually and imagine they're working in a restaurant where they need to share out food. The activity will involve the children getting creative by cutting, colouring and sticking, and solving problems using the skilled developed in the fraction's unit.

Time for activity

Approx. 25 minutes

Delivery notes

Resources: Year 3 Fractions worksheet
Pencil
Rubber
Colouring pencils
Scissors
Glue

Lesson plan

In this activity the children imagine they're working as a chef in the café at Coombe Abbey and they need to share out the food before giving it to the customers.

Start the session by asking the children about whether they've been to Coombe Abbey and ask what they can do there.

Then explain the activity: Children are to work individually. They imagine it's lunch time, they're working in the café and they've been set several tasks which involve sharing out food. This activity involves them getting creative and using the skill developed in the fractions unit.

Explain that it's a busy lunch time and there are some very hungry customers in the café who are looking forward to a tasty lunch. They need to complete the tasks so that the customers get good quality food and get what they've ordered. Will the customers be happy after lunch?

Suggested discussion points

- Have they been to Coombe Abbey?
- What is there to do at Coombe Abbey?

Optional extension activity

There are two birthday parties and your task is to divide the sandwiches out onto plates and give the correct amount to each party. This activity links with the following objectives within the national curriculum.

- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.

Answers

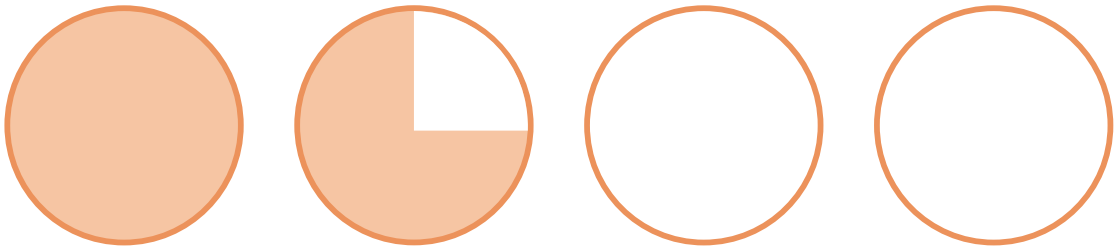
Starters

1. 
2. $\frac{8}{10}$
3. $\frac{1}{2}$ or equivalent

Mains

1. $\frac{5}{6}$
2. $\frac{3}{6}$ or $\frac{1}{2}$
3. $\frac{4}{6}$ or $\frac{2}{3}$
4. $\frac{1}{6}$ of meat pizza, and $\frac{2}{6}$ of vegetarian pizza

Deserts



Optional extension activity

1. 8 on one plate and 12 on the other plate
2. 6

Year 3 - Money

This activity links with the following objectives within the national curriculum.

- Add and subtract amounts of money to give change, using both £ and p in practical contexts.

Activity

The children are to work in pairs. They imagine they're on a shopping trip in town with Mum where they go to Coventry Building Society and other shops to buy various items. The activity will involve working out the total cost of items and calculating the amount of change they need.

Time for activity

Approx. 20 minutes

Delivery notes

Resources: Year 3 Money worksheet
Pretend money
Paper
Pencil
Rubber

Lesson plan

In this activity the children are to work in pairs and imagine they are in town with their Mum. They will go into different shops where they need to calculate the total cost of items purchased and how much change they should be given.

Start the session by asking the children if they know what a building society is.

Then, split the children into groups of 2 and give them a range of pretend money.

Then explain the activity, which is to imagine they're in town with their Mum where they go into different shops and calculate the total cost of items purchased and how much change they should be given. For the first question they work out the answer together. For the remaining questions they use the pretend money to work out the answers to the questions. For each question one person is the child and the other is the shop keeper. Swap who plays each role after every question.

Suggested discussion points

- What is a building society?

Optional extension activity?

The children are to work out how much Mum spent in total at the shops.

Answers

1. £18
2. a. £1.32
   b. 68p
   c. 50p, 10p, 5p, 2p and 1p
3. 50p, 10p, 5p, 2p and 2p
4. 55p
5. Change if choose:
   a. Teddy bear = £2.50
   b. Car = £3.05
   c. Magazine = £5.50
   d. Necklace = £7.50
   e. Lego = £1.05
   f. Teddy bear and necklace = £0.00
   g. Car and necklace = £1.55
   h. Magazine and necklace = £3.00
6. £2.40
7. a. £1.55
   b. 45p

Optional extension activity

£3.56

Year 3 - Length and perimeter

This activity links with the following objectives within the national curriculum.

- Measure the perimeter of simple 2D shapes.
- Measure, compare, add and subtract: lengths (m/cm/mm).

Activity

This is a class quiz where the children are shown 2 different shapes. They first look at the shapes and guess which one they think has the longest length or perimeter. Then they measure or calculate the length or perimeter to see if what they predicted was correct.

Time for activity

Approx. 20 minutes

Delivery notes

Resources: Year 3 Length and perimeter worksheet and presentation
Pencil
Rubber
Paper

Lesson plan

In this activity the children take part in a quiz where they'll be shown 2 different shapes and they'll guess which one they think has the longest length or perimeter. Then they measure or calculate these to see if what they predicted was correct.

Start the session by asking the children about what they know about Coventry Building Society Arena and whether they've been and what they did there?

Give each child a quiz and shapes sheet: Then explain, that they'll take part in a quiz which involves them guessing which of 2 shapes has the longest length or perimeter. Then the children will either measure or calculate them to see if they were correct. All shapes are to scale.

Then start to go through the presentation, which shows 7 questions. For the first 2 questions they look at the 2 shapes and tick on their sheet which they think is the longest.

For questions 3 to 5 they look at the 2 shapes and guess which they think has the longest perimeter and tick this on their sheet. Then they measure the perimeter of these shapes on the shapes sheet and write the answers on their sheet.

For the last 2 questions, again they look at 2 shapes and guess which they think has the longest perimeter and tick this on their sheet. But this time, they are given the measurements and they calculate the perimeter. Make sure you show the slide without the measurements on when they make their guess.

Suggested discussion points

- What is Coventry Building Society Arena?
- Have you been to Coventry Building Society Arena?
- If you've been, what did you go there for?

Optional extension activity

Children to research the lengths and perimeter of different sports courts.

Answers

1. Frank Whittle room
2. Exercise book
3. Shower cap
4. Gym pass
5. Jammy triangle
6. Moonlight restaurant
7. Deluxe room

Optional extension activity

1. Tennis court: Length = 23m and 77cm, Width = 10m 97cm, Perimeter 69m 48cm.
2. Squash court: Length = 9m and 75cm, Width = 6m 40cm, Perimeter 32m 30cm.
3. Volley ball court: Length = 18m, Width = 9m, Perimeter 54m.
4. Netball court: Length = 30m and 50cm, Width = 15m 25cm, Perimeter 91m 50cm.
5. Badminton court: Length = 13m and 40cm, Width = 6m 1cm, Perimeter 39m.

Year 3 - Mass and capacity

This activity links with the following objectives within the national curriculum.

- Measure and compare mass (kg/g).

Activity

The children are to work in groups and make some rocky road cakes.

Time for activity

Approx. 20 minutes

Delivery notes

Resources: Year 3 Mass and capacity worksheet
18cm square tin
Mechanical kitchen scales
Baking parchment
Access to a fridge
Access to a microwave
Food ingredients see below

Lesson plan

In this activity the children are to work in groups to make rocky road cakes.

Then explain the activity: Which is to work in groups of 5 or 6 and follow the recipe to create 12 rocky road cakes. They'll then answer some questions on mass.

Discussion points

The ingredients you have all come from the local supermarket. But they didn't start there! Do you know what the main ingredient is? If you didn't have time to make cakes, other than the supermarket, where else do think where you'd be able to ready-made cakes from?

Task

You and your team are to create 12 rocky road cakes. Read the recipe below to create them, then answer the questions on mass below. You'll need to weigh out all of the ingredients first to make the perfect rocky road.

Optional extension activity

They're given a list of drinks. The activity is to read the recipes of some mocktails and calculate how much liquid each mocktail makes.

Answers

Mass questions

1. 100 grams
2. 65 grams
3. 67 grams

Optional extension activity

Fizzy cherry bomb: 1 litre 320ml

Tropical punch: 2 litres 500ml

Autumn fizz: 2 litres 660ml

Tropical fizz: 2 litres 160ml

Year 3 - Time

This activity links with the following objectives within the national curriculum.

- Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.
- Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight.
- Compare durations of events (for example, to calculate the time taken by particular events or tasks).
- Know the number of seconds in a minute and the number of days in each month, year and leap year.

Activity

The children are to imagine it is their first day working at the watch museum. They need to solve several tasks involving time during their first day.

Time for activity

Approx. 20 minutes

Delivery notes

Resources: Year 3 Time worksheet
Paper
Pencil
Rubber

Lesson plan

In this activity the children are to work alone and imagine it's their first day working at the watch museum. They need to solve several tasks using time during their first day.

Start the session by asking the children if they know about the Coventry Watch Museum project; see the discussion points below.

Then explain the activity: Which is to work alone and imagine it is their first day working at the watch museum. Their manager has set them several tasks to do which involves telling the time and solving time problems.

Suggested discussion points

- Do they know there is a watch museum in Coventry?
- Have they been to the watch museum in Coventry?
- Why do they think there is a watch museum?
- Coventry was one of the 3 main centres for manufacture of watch making in the 18th and 19th centuries.

Optional extension activity

They complete a timetable on the departure times, arrival times and duration times for 6 private jets which are flying from Coventry Airport.

Answers

Getting to work

08:11

08:51

40 minutes

Room codes

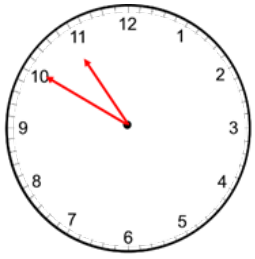
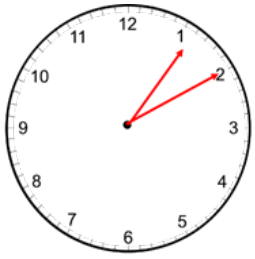
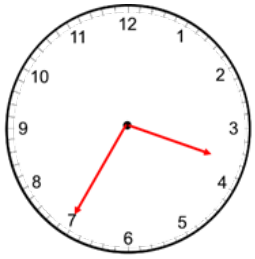
The tea room code is 3160

The watch repair code is 365120

The code for the toilets is 36630

Breaks

1.

Morning break	Lunchtime	Afternoon break
		

2. Morning break: 11.05am

   Lunchtime: 2.10pm

   Afternoon break: 3.45pm

Repairing the clocks

a. 11:20

b. 06:25

c. 09:50

d. 11:05

Yes, Clock C has the correct time

How long do the visitors stay?

Family	Time arrived	Time left	How long?
Jones	10.10am	11.20am	1 hour 10 Minutes
Smith	11.45am	12.25pm	40 minutes
Green	1.50pm	3.05pm	35 minutes
Black	2.15pm	2.40pm	25 minutes

Home time

5.25pm

Optional extension activity

Destination	Time departs	Time arrives	Flight duration
Edinburgh	09:15	10:30	**1 hour 15 minutes**
Paris	10:05	**11:25**	1 hr 20 minutes
Brussels	**11:15**	12:25	1 hr 10 minutes
Southampton	11:55	**12:25**	30 minutes
London	**13:10**	13:35	25 minutes
Amsterdam	14:25	15:40	**1 hour 15 minutes**

Year 3 - Statistics

This activity links with the following objectives within the national curriculum.

- Interpret and present data using bar charts, pictograms and tables.
- Solve one-step and two-step questions (for example 'How many more?' and 'How many less?') using information presented in scaled bar charts and pictograms and tables.

Activity

The children will work individually and imagine they're a news reporter at the Coventry Evening Telegraph who has been asked to create a news report giving a summary of how Coventry City Football Club have performed this season so far. This task will involve interpreting pictograms and tables and they'll be asked to create a bar chart.

Time for activity

Approx. 25 minutes

Delivery notes

Resources: Year 3 Statistics worksheet
Pencil
Rubber
Ruler
Colouring pencils

Lesson plan

In this activity the children imagine they're a news reporter at the Coventry Evening Telegraph Newspaper and they need to interpret information on Coventry City Football Club's performance this season and create a news report about their findings.

Start the session by asking the children about what they know about Coventry City Football Club and whether they've been to watch them play football. See the suggested discussion points.

Then explain the activity: Children are to work individually. Their first task is to look at the pictogram and table and answer questions below regarding these. They'll then need to create a bar chart on the news report template. Their final task is to complete the news report by creating a headline and use the answers to the first task to write a short summary on Coventry City Football Club's performance this season.

Suggested discussion points

- Have they been to watch Coventry City Football Club play?
- Where do they currently play?
- What league are they currently in and how are they performing?

Optional extension activity

Use the 2 pictograms to calculate the number of points Coventry City Football Club had scored after 20 games in the current and previous season.

Answers

Task 1

1. a. 9

   b. 3

Task 2

2. a. Harry Linker

   b. 5

   c. 12

Optional extension activity

This season, after 20 games Coventry City Football Club have scored 32 points.

Last season, after 20 games Coventry City Football Club had scored 26 points.

After 20 games, they have scored 6 more points this season compared to last season.

Year 3 - Shapes

This activity links with the following objectives within the national curriculum.

- Recognise 3D shapes in different orientations and describe them.

Activity

The children have the nets of 3D shapes which when made are items you may take on a holiday or see on a holiday. Once built they need to describe the properties of these shapes.

Time for activity

Approx. 20 minutes

Delivery notes

Resources: Year 3 Shapes worksheet
Scissors
Glue
Pencil
Rubber

Lesson plan

In this activity the children have the nets of 3D shapes which when made are items you may take or see on a holiday. Once built they need to describe the properties of these shapes.

Start the session by asking the children if they know there is an airport in Coventry, called Coventry Airport, and although it's a small one, the odd flight to take people on holiday to different countries still take off from there.

Then explain the activity: Which is to work in pairs and each child creates 2 of the 4 nets. Then they work together to fill in the worksheet where they'll enter the properties of each of the four 3D shapes on the holiday shapes worksheets.

Suggested discussion points

- Coventry Airport opened in 1936.
- During the Second World War it was used as a fighter station by the Royal Air Force and was damaged in the 1940 Coventry Blitz.
- After the war it was a passenger and freight terminal.

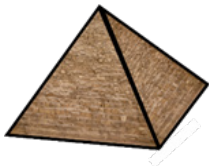
Task

You and your partner have the nets of four 3D shapes. Create two nets each by cutting them out and making these up. When built they will be items you may take or see on a holiday. Then work with your partner and fill in the worksheet where you'll enter the properties of each of the four 3D shapes.

Optional extension activity

They're to solve the clues to a crossword on shapes.

Answers

Shape name	Picture	Number of flat faces	Number of curved faces	Number of sides	Number of vertices
Cuboid		6	**0**	**12**	**8**
Triangular prism		**5**	0	9	6
Cylinder		2	1	2	0
Squared based pyramid		5	0	8	5

Optional extension activity

Across

1. Octagon
5. Square
7. Quadrilateral
8. Parallel

Down

2. Three
3. North
4. Acute
6. Rectangle

Kindness changes lives

We're passionate about making a real difference to the lives of young people in and around Coventry. That's why we work with local schools to help support children's education.

All together, better

Coventry Building Society.
Principal Office: Economic House, PO Box 9, High Street, Coventry CV1 5QN.