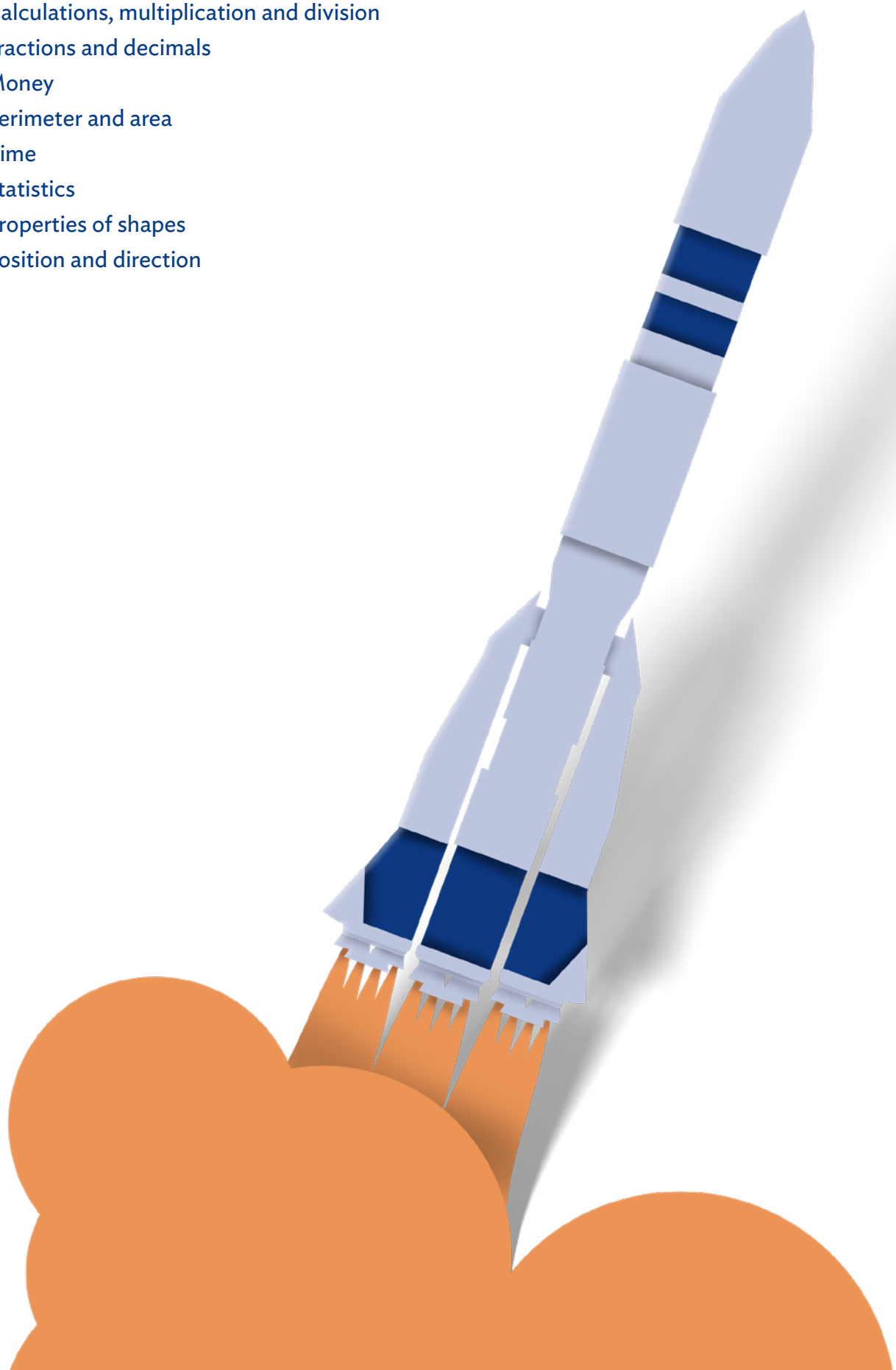
Coventry Counts

Year 4 teacher guide

COVENTRY Building Society

What's inside



Year 4 - Place value

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

- Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s).
- Order and compare numbers beyond 1,000.
- Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value.

Activity

The children need to work in groups of 3 to 6 to create a timeline of when different modes of transport were invented. This 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 4 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 Coventry Transport Museum to create a timeline of when different modes of transport were invented.

Start the session by asking the children about whether they've been to the Coventry Transport Museum and what different vehicles are there.

Then explain the activity: Children are to work in groups of 3-6. There main aim is to create a timeline of when different modes of transport were invented. To do this they need to complete 5 tasks which involve using the skill developed in the place value unit.

Suggested discussion points

- Have they been to Coventry Transport Museum?
- What different vehicles are there?
- When were different modes of transports invented?

Optional extension activity

You've been set another task by your manager which is to round the mileage of 6 cars in the museum to the nearest 10, 100 and 1,000. This activity links to the following curriculum objective.

- Round any number to the nearest 10, 100 or 1,000.

Answers

Position	Transport	Year	Year in words	Inventors	Age
1	Hot air balloon	1783	One thousand seven hundred and eighty-three	The Montgolfier brothers	43 and 38
2	Steam locomotive	1802	One thousand eighteen hundred and two	Richard Trevithick	31
3	Modern bicycle	1885	One thousand eight hundred and eighty-five	John Kemp Starley	29
4	Petrol automobile	1886	One thousand eight hundred and eighty-six	Karl Benz	41
5	Aeroplane	1903	One thousand nine hundred and three	The Wright brothers	32 and 36
6	Space flight	1961	One thousand nine hundred and sixty-one	Yuri Gagarin	27

Extension activity

	Nearest 10	Nearest 100	Nearest 1000
a.	9,480	9,500	9,000
b.	15,680	15,700	16,000
c.	34,220	34,200	34,000
d.	44,570	44,600	45,000
e.	23,130	23,100	23,000
f.	30,000	30,000	30,000

Year 4 - Calculations, addition and subtraction

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

- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
- Estimate and use inverse operations to check answers to a calculation.
- Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

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 4 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 the 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.

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 have 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 we 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

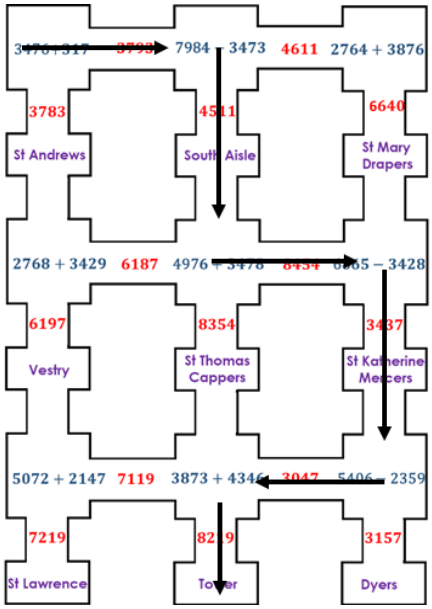
- **There are three cathedrals**: St Mary's Priory, St Michael's Cathedral first structure and second structure.
- **St Michael's Cathedral was bombed in the Second World War:** The ruin is still here today the second structure was built after the Second World War.

Optional extension activity

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

Year 4 - Calculations, addition and subtraction

Puzzle 1



Puzzle 2

1. 746+319=1065

Missing numbers are 7, 6 and 1. 7+6+1=14, 1+4=5

Puzzle 3

The answer is incorrect, 469+412=881

Puzzle 4

1. 4,101
2. 794
3. 400

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 4 - Calculations, multiplication and division

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

- Recall multiplication and division facts for multiplication tables up to 12 × 12.
- Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers.
- Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
- Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as '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 4 Calculations, multiplication and division worksheet
Pencil
Rubber
Paper
Bell or whistle

Lesson plan

In this activity the children imagine they are 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 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 work 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

6×7=42

81÷9=9

8×3=24

24÷3=8

96÷8=12

4×7=28

64÷8=8

5×6=30

6×4=24

132÷12=11

108÷9=12

28

54

32

7

12

Clue 2

Bacon and Ham is 770g, 7+7=14, 1+4=5

Butter is 385g, 3+8+5=16, 1+6=7

Sugar is 1540g, 1+5+4+0=10, 1+0=1

Sweets is 595 g, 5+9+5=19, 1+9=10, 1+0=1

5+7+1+1=14

Clue 3

1. 560, 5+6+0=11
2. 480, 4+8+0=12
3. 18, 1+8=9
4. 56, 5+6=11

The answer to the code

Quarter past eight on 14 November.

Extension activity

Sam is a German spy.

Year 4 Fractions and decimals

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

- Recognise and show, using diagrams, families of common equivalent fractions.
- Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.
- Solve simple measure and money problems involving fractions and decimals to 2 decimal places.

Activity

The children work individually and imagine they're working in a restaurant and two customers are having their birthday parties at the restaurant this lunch time. They need to complete the following tasks so that the customers have a good time and get what they've ordered. The activity will involve the children solving problems using the skilled developed in the fractions and decimals unit.

Time for activity

Approx. 25 minutes

Delivery notes

Resources: Year 4 Fractions and decimals worksheet
Pencil
Rubber
Coloring pencils
Scissors
Glue

Lesson plan

In this activity the children imagine they're working as a chef at the café at Coombe Abbey and two customers are having their birthday parties at the restaurant this lunch time. They have several tasks to do so the customers at the birthday parties have a good time. The activity involves using the skills developed in the fractions and decimals unit.

Start the session by asking the children about whether they have been to Coombe Abbey and ask if they know what things they can do there.

Then explain the activity: Children are to work individually. They imagine they're working as a chef in the café and two customers are having their birthday parties this lunchtime. They need to complete the following tasks so that the customers have a good time. To do this they need to complete tasks which involves cutting and sticking and using the skills learnt in the fractions and decimal unit. Children need to complete the tasks so that the customers have a good time and get what they have ordered. Will the customers have a good time at the party?

Suggested discussion points

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

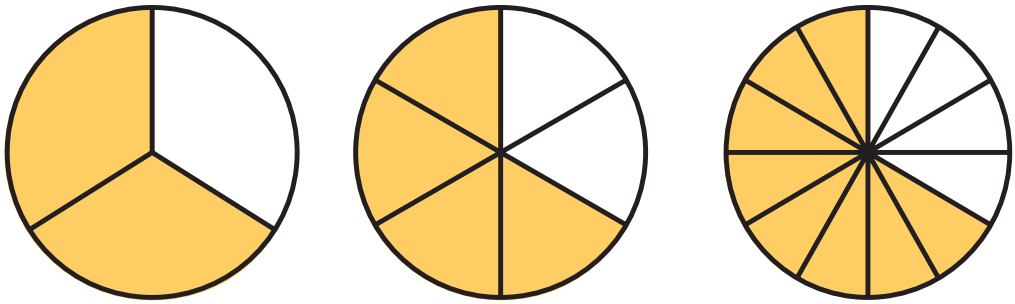
Optional extension activity

Research 5 attractions close to Coombe Abbey and find out what these attractions are. The distance they are from Coombe Abbey has been displayed to one decimal place. They need to work out what the distance Is to the nearest whole number. This activity links with the following objectives within the national curriculum.

- Round decimals with 1 decimal place to the nearest whole number.

Answers

Garlic bread



$\frac{2}{3}$ $\frac{4}{6}$ $\frac{8}{12}$

Sandwiches

1. The afternoon tea theme party needs 32 sandwiches with 8 sandwiches on each plate.
2. The Fortnite theme party needs 24 sandwiches with 15 sandwiches on one plate and 9 on the other plate.

Deserts

1. £0.25
2. £2.55
3. £26.60

Optional extension activity

Attraction	Distance in miles	Distance to nearest whole number
Draycote Water Visitor Centre	7.5	8
Coventry Cathedral	4.2	4
The Transport Museum	4.3	4
Brandon March Nature Reserve	2.8	3
Midlands Air Museum	4.1	4

Year 4 - Money

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

- Estimate, compare and calculate different measures, including money in pounds and pence.

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 in the city centre to buy various items. The activity will involve using the skills developed in the money unit.

Time for activity

Approx. 20 minutes

Delivery notes

Resources: Year 4 Money worksheet
Pretend money
Paper
Pencil
Rubber

Lesson plan

In this activity the children are to work in pairs and imagine they're in town with their Mum. They'll go into different shops where they need to calculate the total cost of items purchased in each shop.

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 and they go into different shops where they need to calculate the total cost of items purchased in each shop. They work out the questions together using the money provided to help them.

You start off in Coventry Building Society where you open a savings account. Then you go to several shops to buy certain items. You'll also have time to have some lunch and an ice cream. The children need to work together to answer the questions using the money provided.

Suggested discussion points

- What is a building society?

Optional extension activity

The children are to work out how much Mum spent in the town centre.

Answers

1. £9.27
2. a. Hysterical jokes, Funny jokes, Silly jokes, Hilarious jokes
   b. £6.30
3. 2 tracksuit bottoms, 5 t-shirts.
4. a. £23.48
   b. Voucher 1 price is £11.74, Voucher 2 price is £13.48. Voucher 1 saves the greatest amount of money.
5. Yes, she has around £1 or £1.10
6. 65p
7.

Toy	Sale price	Full price
Book	£3.40	£6.80
Felt tips	£2.50	£5.00
Lego set	£7.20	£14.40
Drawing set	£4.00	£8.00

   a. £17.10
   b. £34.20

Extension activity

Yes, £50.48.

Year 4 - Perimeter and area

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

- Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
- Find the area of rectilinear shapes by counting squares.

Activity

This is a class quiz where the children will be shown 2 different shapes. They'll first look at the shapes and say which one they think has the longest perimeter or largest area. Then they'll calculate either the perimeter or area to see if what they predicted was correct.

Time for activity

Approx. 20 minutes

Delivery notes

Resources: Year 4 Perimeter and area 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 perimeter or largest area. Then they'll calculate either the perimeter or area to see if what they predicted was correct.

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

Then give each child a quiz sheet and explain that they'll take part in a quiz which involves them guessing which of the 2 shapes has the longest perimeter or largest area before calculating them. All shapes are to scale.

Then start to go through the presentation, which shows 8 questions. For the first 4 questions they look at 2 shapes and guess which they think has the longest perimeter and tick this on their sheet. Make sure you show the slide without the measurements on when they make their guess. Then show the slide with the measurements on and asked them to calculate the perimeter to see if what they guessed was correct.

For the last 4 questions they look at 2 shapes and guess which they think has the largest area and tick this on their sheet. Make sure you show the slide without the squares on when they make their guess. Then show the slide with the squares on and asked them to count the squares to work out the area to see if what they guessed was correct.

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?

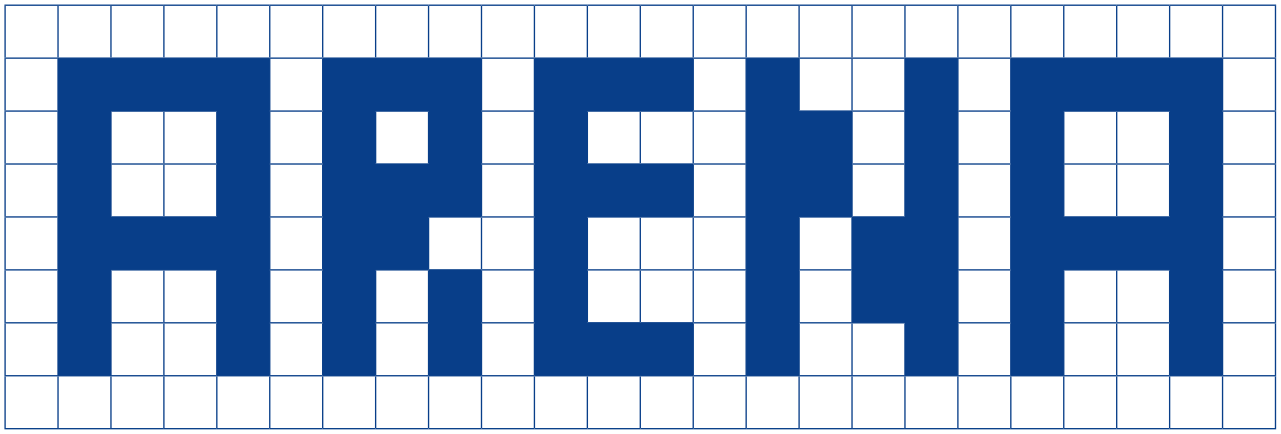
Optional extension activity

They are to create the word Arena on squares on the sheet. They then find out what the area is of each letter. Then they find the area of the whole word.

Answers

Extension answers

Answers may vary. Example below is as follows:



A=16

R=14

E=12

N=16

A=16

Total=74

Year 4 - Time

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

- Read, write and convert time between analogue and digital 12 and 24-hour clocks.
- Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days.

Activity

The children are to imagine it's 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 4 - Time worksheet
Paper
Pencil
Rubber

Lesson plan

In this activity the children are to imagine it's their first day working at the watch museum. They need to solve several tasks involving 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 imagine it's 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 you 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

08:16

08:52

36 minutes

Room codes

The break room code is 4107

The watch repair is 85127

The code for the toilets is 8322

Fix the clocks

How long do the visitors stay?

Family	Time arrived	Time left	How long?
Jones	**10:10**	**11:15**	1 hour 5 minutes
Patel	**11:40**	12:35	**55 minutes**
Green	**13:50**	14:35	**45 minutes**
Black	**14:25**	**15:00**	35 minutes

How long people work there

Jane has worked there for 5 years and 3 months.
Dave has worked there for 3 years 6 months.
James has worked there for 8 years 1 month.

Home time

05:40

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 4 - Statistics

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

- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
- Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

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 over the last few seasons. This task will involve interpreting line charts, tally charts and tables and they'll be asked to create a bar chart.

Time for activity

Approx. 25 minutes

Delivery notes

Resources: Year 4 Statistics worksheet
Pencil
Ruler
Rubber
Colouring pencils

Lesson plan

In this activity the children imagine they are a news reporter at The Coventry Evening Telegraph and they need to interpret information on Coventry City Football Club's performance over the last few seasons 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 interpret the line chart and table and answer questions regarding these. Then they'll need to create a bar chart on the news report template. There final task is to complete the news report by creating a headline and use the answers to the first and second task to write a short summary on Coventry City Football Club's performance over the last few seasons.

Suggested discussion points

Have you 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's rival team scored in the current and previous season.

Answers

Task 1

1. a. 2017
   b. 2018-2020
2. a. 8
   b. 43

Task 2

Mohammed Maradonna played most games this season. He played 42 times.

Optional extension activity

They scored 66 points this season.

They scored 61 points in the last season.

They have scored 5 more points this season compared to the last season.

Year 4 - Properties of shapes

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

- Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
- Identify acute and obtuse angles and compare and order angles up to 2 right angles by size.
- Identify lines of symmetry in 2D shapes presented in different orientations.
- Complete a simple symmetric figure with respect to a specific line of symmetry.

Activity

The children imagine they're on work experience at the airport. The activity will involve them solving problems using the skills they learnt in the property of shapes unit.

Time for activity

Approx. 15 minutes

Delivery notes

Resources: Year 4 - Properties of shapes worksheet
Pencil
Rubber
Ruler

Lesson plan

In this activity the children imagine they're on work experience at the airport where they'll solve problems using the skills they learnt in the property of shapes unit.

Start the session by asking the children if they know there's an airport in Coventry, see the discussion points below.

Then explain the activity, which is to imagine they're on work experience at an airport in different departments for the day where they'll solve shape problems.

Suggested discussion points

- Coventry Airport was opened in 1936.
- During World War Two 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.

Optional extension activity

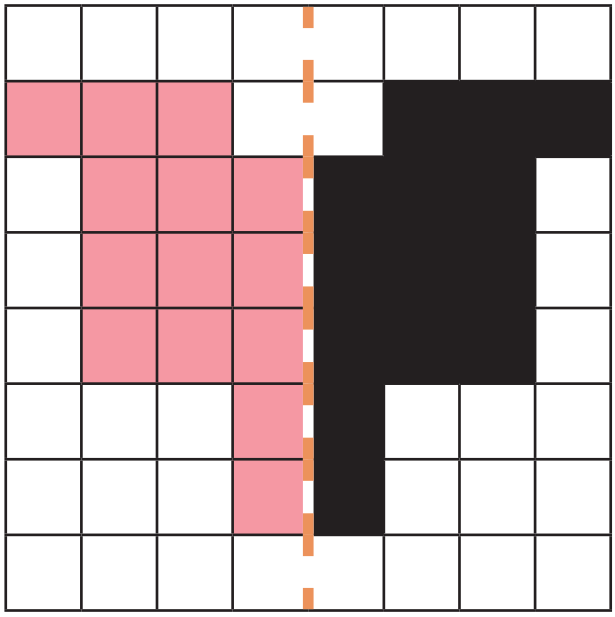
Draw the net of a cube, then colour it in and make it up to look like a parcel.

Answers

Air traffic control

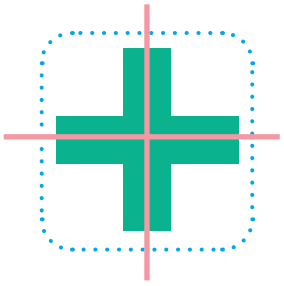
1. Copenhagen, Paris, London, Dublin, Cork.
2. London: Right-angle
   Paris: Acute
   Copenhagen: Acute
   Dublin: Obtuse
   Copenhagen: Obtuse

Extending the passenger terminal

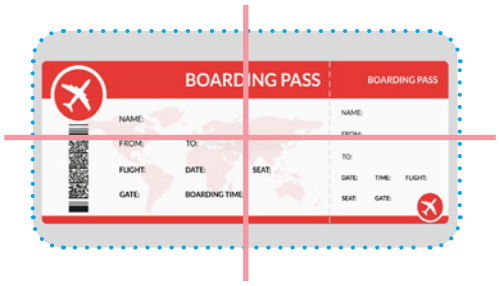


Lost-property

1 lines of symmetry

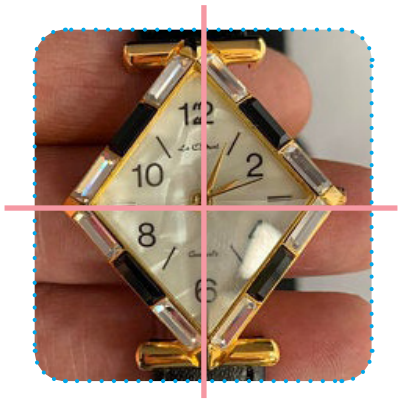


2 lines of symmetry



2 lines of symmetry

1 line of symmetry



2 lines of symmetry

0 lines of symmetry

In flight catering

Pizza

1. B
2. C
3. A

Biscuits

1. Fig biscuit
2. Custard cream
3. Jammy sandwich
4. Chocolate snap

Dinner break

Across

2. Isosceles
6. Equilateral
9. Rectangle

Down

1. Acute
3. Obtuse
4. Scalene
5. Parallelogram
7. Two
8. Four

Year 4 - Position and direction

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

- Describe positions on a 2-D grid as coordinates in the first quadrant.
- Describe movements between positions as translations of a given unit to the left/right and up/down.
- Plot specified points and draw sides to complete a given polygon.

Activity

The children are to imagine they are lost in Coventry and are searching for their friend who is at the Lady Godiva Statue. They'll use the skills developed in the position and direction unit to locate their friend.

Time for activity

Approx. 20 minutes

Delivery notes

Resources: Year 4 - Position and and direction worksheet and presentation
Paper
Pencil
Rubber

Lesson plan

In this activity the children are to work in pairs. They'll imagine they're lost in Coventry and are searching for their friend who is at the Lady Godiva statue. They'll use the skill developed in the position and direction unit to locate their friend.

Start the session by asking the children if they've heard of Lady Godiva. See the discussion points below.

Then explain the activity, which is to work in groups of 2 and imagine they're both lost in different locations in Coventry. They need to work together to find out where they both are. Then they need to find their other friend who is waiting for them at the Lady Godiva statue. This task will involve them using the skills they developed in the direction and position unit.

Then, give each child a map of Coventry and the Lady Godiva worksheet and start to go through the presentation.

Suggested discussion points

- Have they heard of Lady Godiva?
- There is a statue of her, where is it?
- Why is there a statue of her?
- What did Lady Godiva do?
- What is she famous for?

The story

You've arranged to meet your friends Mohammad and Megan at the Lady Godiva statue in Coventry. Mohammad has found his way to the statue, but you and Megan have become lost at different locations in Coventry. Megan rings you and says if we can find our way to Coventry Building Society, then my Mum, the branch manager will give us directions to the Lady Godiva statue. You've a map, but you don't know your location on it. Can you find your friends?

Optional extension activity

Create a map of your local area with points of interest. Then plot a route on this map and describe your route using different points of interest.

Answers

Task 1

Letter	Coordinates	Place
A	(5,9)	The Transport Museum
B	(2,7)	The Belgrade Theatre
C	(9,7)	The Fargo Village
D	(6,6)	The Cathedral
E	(7,4)	The Herbert Art Gallery
F	(1,1)	The War Memorial

Task 2

1. (1,4)
2. (1,5)
3. (4,3)
4. (1,5)

Your friends location is (1,5)

Task 3

Triangles to translation	Translation
Green triangle to the red triangle	6 units to the right and 2 units up
Red triangle to the blue triangle	1 unit to the left and 3 units up
Blue triangle to the yellow triangle	2 units to the left and 1 unit down

Translate from coordinate (1,1) to (7,3), then translate to (6,6), then translate to (4,5). Therefore, Coventry Building Society is coordinate (4,5).

Task 4

Move 3 units to the right.

Task 5

The coordinates for the Lady Godiva statue are (3,3).

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.