

Daily activities:

<p>English worksheet and tasks</p> <p>Read 'My cousin is a time traveller' and complete the tasks below.</p>	<p>Maths:</p> <p>Complete the White Rose Maths tasks at the end of this document - 1 per day. Ensure you watch the video before you complete the task.</p>	<p>Reading Plus:</p> <p>Log into Reading Plus and complete your weekly reading comprehension tasks and vocabulary tasks. <i>Site code: rpendea2</i></p>	<p>TTRS and Numbots</p> <p>Working on Times Table Rockstars - Can you complete all the set games and challenge somebody in our school? Are you winning in the current Battle of the Bands?</p>	<p>PE session</p> <p>Join Joe Wickes live every morning @ 9:00am or access it any time throughout the day.</p>	<p>A Topic activity from the choices below.</p> <p>Try to complete all of the tasks and send your work to your teacher.</p>
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This week's themed learning is based around our new topic of **Space - Infinity and Beyond**

Science/English : Dragon Rocket launch by SpaceX



History was made on the 30th of May when Nasa astronauts - Doug Hurley and Robert Behken were sent to space on a rocket owned by the private company SpaceX. You might like to hear that once the astronauts reached space they named their dragon rocket 'Endeavour'!

You can read all about this historic moment on [Newsround](#). You can also watch the launch [here](#) and watch the astronauts dock with the International Space Station [here](#).

When you have read through all of the information we would like you to complete a news report for the momentous occasion using the template below.

It's important that you remember to use the features and language found in news reports. You can recap those on the [First News website](#)

If you want to find out more about SpaceX you can look on their website [here](#). You can even have a try at virtually docking to ISS! [virtual docking](#)

Geography: Asteroid impacts



An asteroid is a chunk of rock and metal in outer space that is in orbit around the Sun. Asteroids vary in size from just a few feet across to hundreds of miles in diameter. You can find out more about them [here](#). About 35 million years ago an asteroid measuring approximately 8km across slammed into Siberia in Russia at 15-20km a second and created a field of diamonds bigger than all of the other diamond fields on Earth combined.

Try to find out:

- Why the diamonds haven't been mined
- The other effects caused by the asteroid

When you have finished your research read about other asteroid impacts around the globe (find this below) and mark them on the map.

Big Question/Global Learning

Elon Musk is an engineer, industrial designer, technology entrepreneur and philanthropist. He's also a multi billionaire and has chosen to use some of his wealth to discover new technologies and space travel. Do you think it is important that individual rich people use their money in this way and space travel becomes private or do you think that space exploration should be undertaken by governments and be for the public? Write a paragraph to explain your thinking.



Asteroid Impacts

About 35 million years ago an asteroid measuring approximately 8km across slammed into Siberia in Russia at 15-20km a second and created a field of diamonds bigger than all of the other diamond fields on Earth combined.

You could try to find out:

- Why the diamonds haven't been mined.
- What an industrial diamond is.
- The other effects caused by the asteroid.

The Earth has a long history of asteroid impacts. The Earth's craters are enduring testaments to direct asteroid hits. Here is a list of the top ten asteroid impacts on Earth. Can you mark them on the world map?

History: Martin Luther King

In 1960s America although slavery had been abolished, black people and other ethnic minorities were still treated unfairly. Black people weren't allowed to use the same facilities as white people e.g. toilets, entrances to buildings, seats on the bus, shops and schools. In some places they weren't allowed to walk on the same side of the street. This was called segregation. Martin Luther King Jr. felt that it was wrong to judge people by the colour of their skin. He believed that people should be judged on their character and not how they looked.

He was a well-known preacher, who wrote speeches about civil rights to try and persuade powerful people in government to change the laws on how Black people were treated. This was called the civil rights movement. In class we have watched his speech as part of our learning on what makes a powerful speaker and speech. This history of the civil rights movement is more important than ever when we see the current events in America.

Read the extract of Martin Luther King's speech below or watch the speech [here](#). Discuss with your family how hearing a speech like this might have made an oppressed black person feel during segregation in the 1960's.

Use the information in the speech extract and video to answer these questions.

1. What phrases does Martin Luther King keep repeating throughout this speech?
2. What does he want little boys and girls of all races to be able to do?
3. What is MLK trying to achieve?
4. What are the words of the negro spiritual?

Vocabulary check:

- **nullification** - in United States nullification is a legal theory that a state has the right to or invalidate any law effectively getting rid of it. Although slavery was made illegal, many black people felt this law had been nullified because they still weren't equal.
- **exalted** - to be in a state of extreme happiness
- **discord** - a disagreement



Art

Drawing with an eraser: watch the tutorial video [here](#) on how to draw an outer space picture in reverse by rubbing out a charcoal background with an eraser. (If you don't have charcoal at home this would work with a pencil)

You will begin by shading a piece of white paper all over using charcoal (or a pencil) to form a dark background. Once completely filled, any chosen images can be drawn in the charcoal using an eraser. This has the reverse effect of drawing with a pencil as the image is created by erasing the background instead of adding to it.

The effect is impressionistic though fairly precise lines can be drawn with the eraser if desired.



English: Grammar

A contraction is a shortened version of the written and spoken forms of a word, syllable, or word group, created by omission of internal letters and sounds.

Complete the grammar task below: turn the words in *italics>* into a contraction (shortened form). Remember that the apostrophe is located where letters have been removed.

Common Contractions in English		
aren't - are not	I'm - I am	that's - that is
can't - cannot	I've - I have	there's - there is
didn't - did not	isn't - is not	we're - we are
don't - do not	let's - let us	what's - what is
he'll - he will	she'll - she will	you'll - you will

English: Writing

Developing a tourism industry:

You have been assigned the task of bringing tourists to a new island that has been discovered.

You will need to consider:

- Why would tourists want to visit this island?
- What unique features does the island have?
- What sights is there to see?
- Are there any unique species?
- What activities are available to participate in?

Use this information to design your own tourist brochure. Remember a brochure is a persuasive piece of writing and there are examples of persuasive techniques below. There is a template to support the layout.

Try to include:

- | | | |
|--------------------|------------|----------------------------|
| - Activities | - Weather | - Places to stay |
| - Main attractions | - Cost | - Local cuisine |
| - Wildlife | - Location | - Island's unique features |

Sticky Knowledge (remembering our previous learning):

History



As part of our Ancient Greeks topic we studied Alexander the Great but was he really great? Why does history remember him? Research information on the leader [here](#) and [here](#). Create an information poster explaining why you think he was a great leader of his time.

Science: Exercise



What happens to our heart and pulse rate when we exercise?
How does it differ from when we're at rest?
Why does this happen?

Recap on how you can measure your pulse rate [here](#).

Measure your pulse rate with different levels of exercise and then complete the recording table below. What do you notice? Can you explain what is happening?

Geography: Rainforests



During your rainforest topic you learnt about the effects of deforestation and the need for land in the rainforest. Recap on the arguments for and against deforestation [here](#) and [here](#).

Complete the Deforestation debate sheet on Purple Mash which has been set as a 2Do for you on Purple Mash.

Website links mentioned above:

- <https://www.bbc.co.uk/newsround/52526849> news article on the SpaceX launch
- https://www.youtube.com/watch?v=EhCxsYa7C_8 - watch the launch
- <https://www.youtube.com/watch?v=WUNMCucg2BU> - watch the docking with ISS
- <https://www.spacex.com/> - Spacex information
- <https://iss-sim.spacex.com/> - virtual ISS docking
- <https://schools.firstnews.co.uk/blog/journalistic-writing/features-of-a-newspaper-report-ks2/> - features of a news report
- <https://www.sciencekids.co.nz/sciencefacts/space/asteroids.html> - asteroid information
- https://www.ducksters.com/biography/alexander_the_great.php - Alexander the Great
- <https://www.historyforkids.net/alexander.html> - Alexander the Great
- <https://www.youtube.com/watch?v=oAjnlDZH9H8> - how to measure pulse rate
- <https://www.youtube.com/watch?v=vP4iY1TtS3s> Martin Luther King speech
- <http://images.scholastic.co.uk/assets/a/7d/14/ceissue3a2iiback4-inp-528011.pdf> - deforestation arguments Scholastic
- <https://www.theworldcounts.com/stories/Deforestation-Facts-for-Kids> - deforestation facts

Geography task: can you locate these Asteroid impact sites on the world map? Mark the number of the crater accurately

The Earth has a long history of asteroid impacts. The Earth's craters are enduring testaments to direct asteroid hits. Here is a list of the top ten asteroid impacts on Earth. Can you mark them on the world map?

1. Vredefort Crater

Asteroid impact date: Estimated 2 billion years ago

Location: Free State, South Africa

2. Sudbury Basin

Asteroid impact date: Estimated 1.8 billion years ago

Location: Ontario, Canada

3. Acraman Crater

Asteroid impact date: Estimated 580 million years ago

Location: South Australia, Australia

4. Woodleigh Crater

Asteroid impact date: Estimated 364 million years ago

Location: Western Australia, Australia

5. Manicouagan Crater

Asteroid impact date: Estimated 215 million years ago

Location: Quebec, Canada

6. Morokweng Crater

Asteroid impact date: Estimated 145 million years ago

Location: North West, South Africa

7. Kara Crater

Asteroid impact date: Estimated 70.3 million years ago

Location: Nenetsia, Russia

8. Chicxulub Crater

Asteroid impact date: Estimated 65 million years ago

Location: Yucatán, Mexico

9. Popigai Crater

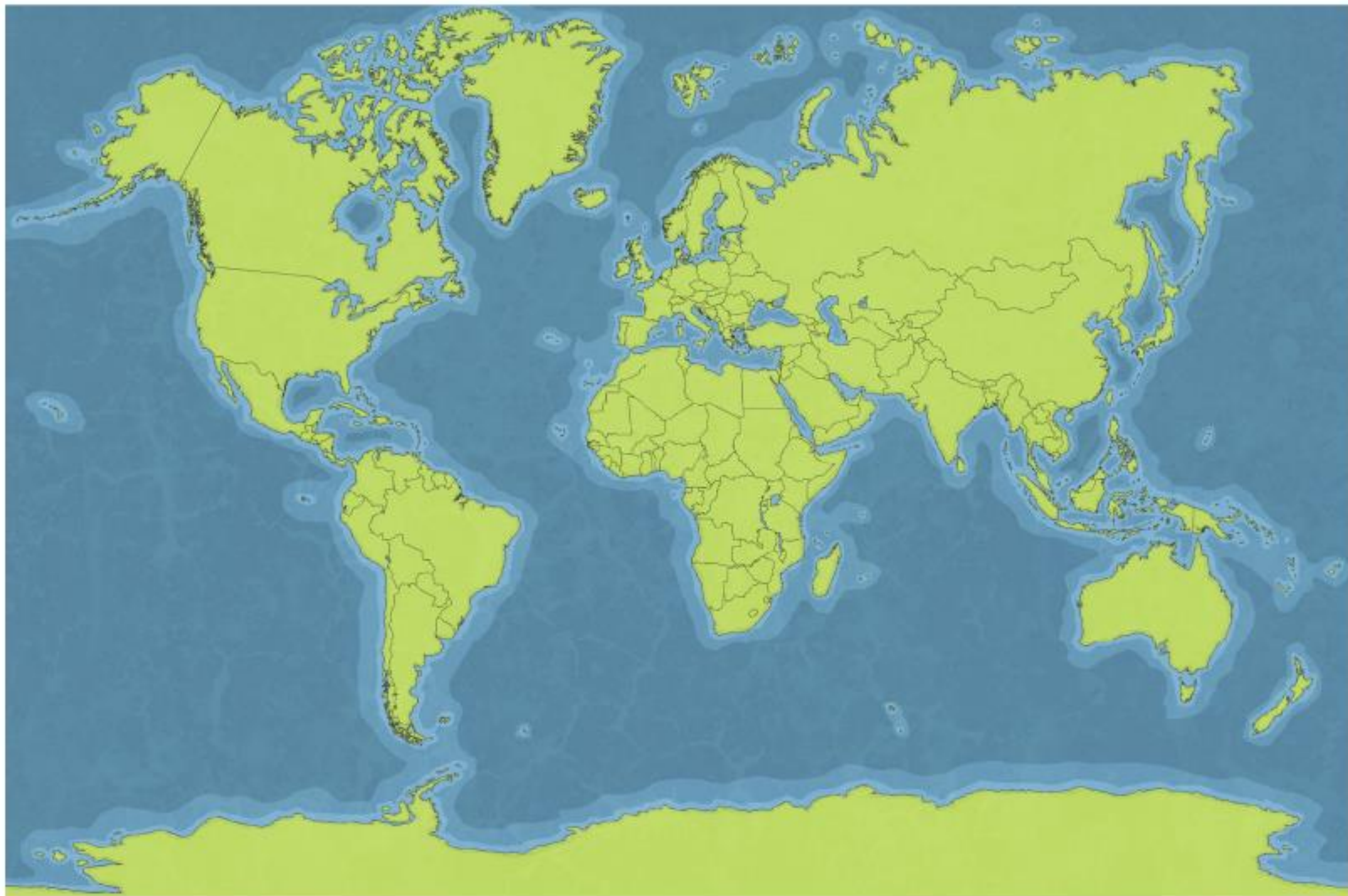
Asteroid impact date: Estimated 35.7 million years ago

Location: Siberia, Russia

10. Chesapeake Bay Crater

Asteroid impact date: Estimated 35 million years ago

Location: Virginia, United States



'I have a dream' Speech by Martin Luther King 28/08/1963

I have a dream that my four little children will one day live in a nation where they will not be judged by the colour of their skin but by the content of their character.

I have a dream today.

I have a dream that one day down in Alabama, with its vicious racists, with its governor having his lips dripping with the words of nullification; that one day right down in Alabama little black boys and black girls will be able to join hands with little white boys and white girls as sisters and brothers.

I have a dream today.

I have a dream that one day every valley shall be exalted, and every hill and every mountain shall be made low, the rough places will be made plains and the crooked places will be made straight and the glory of the Lord shall be revealed and all flesh shall see it together.

This is our hope. This is the faith that I will go back to the South with. With this faith we will be able to hew out of the mountain of despair a stone of hope.

With this faith we will be able to transform the jangling discords of our nation into a beautiful symphony of brotherhood.

With this faith we will be able to work together, to pray together, to struggle together, to go to jail together, to climb up for freedom together, knowing that we will be free one day.

This will be the day when all of God's children will be able to sing with new meaning "My country 'tis of thee, sweet land of liberty, of thee I sing. Land where my fathers died, land of the Pilgrim's pride, from every mountainside, let freedom ring!"

And if America is to be a great nation, this must become true. So, let freedom ring from the hilltops of New Hampshire. Let freedom ring from the mighty mountains of New York.

Let freedom ring from the heightening Alleghenies of Pennsylvania.

Let freedom ring from the snow-capped Rockies of Colorado.

Let freedom ring from the curvaceous slopes of California.

But not only that, let freedom, ring from Stone Mountain of Georgia.

Let freedom ring from every hill and molehill of Mississippi and every mountainside.

And when this happens, when we let freedom ring, when we let it ring from every tenement and every hamlet, from every state and every city, we will be able to speed up that day when all of God's children, black men and white men, Jews and Gentiles, Protestants and Catholics, will be able to join hands and sing in the words of the old spiritual, "Free at last, free at last. Thank God Almighty, we are free at last.

Sticky Knowledge Science – Exercise

<i>Type of movement</i>	<i>Pulse rate for 15 seconds</i>	<i>BPM (beats per minute)</i>
<i>At rest</i>		
<i>Light movement</i>		
<i>Moderate movement</i>		
<i>Heavy movement</i>		

Grammar Task: Contractions

Turn the words in *italics* into a contraction (shortened form). Remember that the apostrophe is located where letters have been removed. The first one has been done for you.

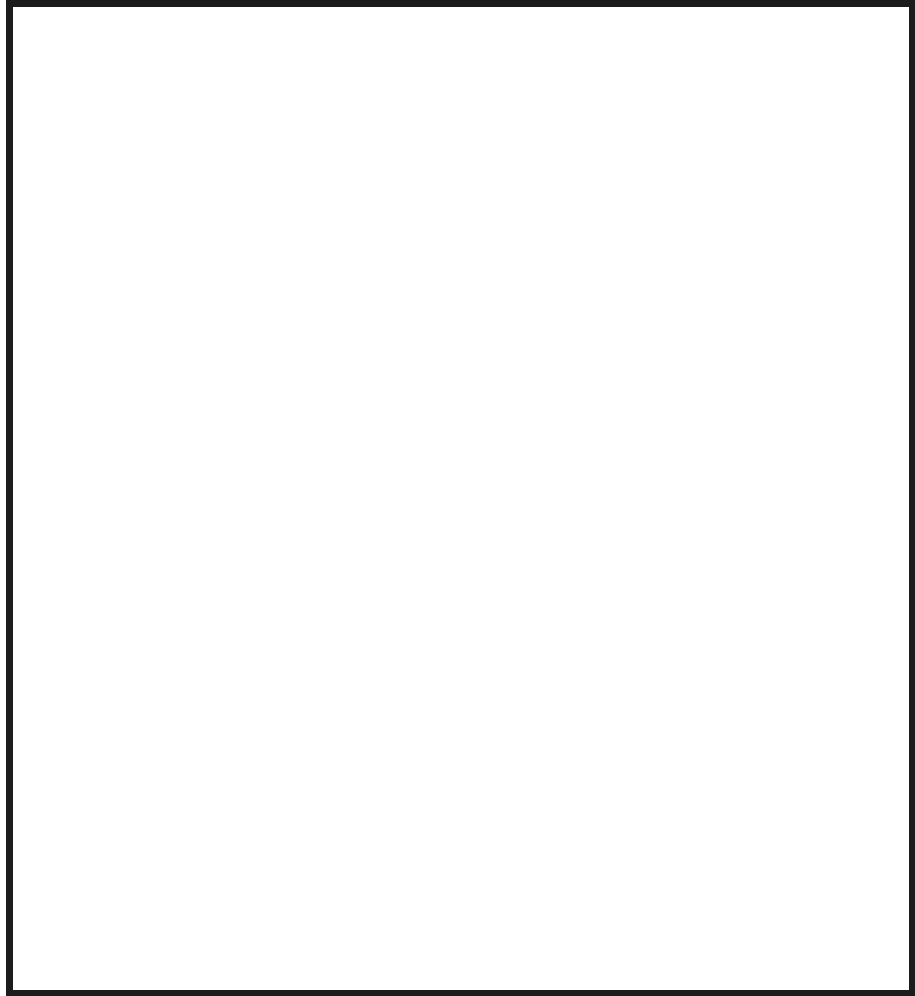
1. Trudy *does not* understand her homework. doesn't
2. Sam rarely laughs while *he is* sleeping.
3. Bill likes chocolate but *he has* stopped eating it.
4. *We have* tried to be fair to everyone.
5. Karen and Sarah think *they are* cuter than you.
6. Maria refused to admit that *she had* put butter in her pocket.
7. Ashley promised that *she would* send us an e-mail.
8. The report will be handed in but *it will* be late.
9. I wonder if *it is* proper to eat soup with a knife and fork.
10. That is the silliest song *they have* ever sung.

English: Persuasive Brochure Checklist

Feature	Examples	Tick
Beautiful images	A beach, mountains or beautiful buildings.	
Exciting/emotive	<i>Come and see the stunning moorland, it will leave you breathless.</i>	
Flattering descriptions	<i>The crystal clear water reflects the mountains like a mirror.</i>	
Present tense	<i>The winding streets lead to an 18th century church.</i>	
Directive language	<i>Come and experience the famous autumn colours first-hand.</i>	
Rhetorical questions	<i>There are amazing views from the top of the mountain, can you face the challenge of getting to the top?</i>	
Personal pronouns	'We', 'us' and 'you'.	
Informal language	<i>If you like parties, this is the place for you.</i>	
Repetition	<i>The weather here is hot, hot, hot!</i>	
Clear presentation	Headings, sub-headings, paragraphs, maps and photographs.	

Holiday Brochure

Blank lined writing area on the right side of the page.



Blank lined writing area at the top of the middle section.

Blank lined writing area on the left side of the page.

Introduction

Each week you will receive a set of English tasks. You should aim to complete one each day. Spending about 30 minutes on reading, 45 minutes on writing and at least 20 minutes on grammar and spelling. It is fine for you to ask for help from parents, siblings or your teacher through teams. During the first week you will:

Week 6	
I have carefully read the chapter and answered the questions.	☆
I have written a balanced and detailed argument.	☆
I have read and answered the grammar questions carefully.	☆
I have practised the spellings and used some in sentences.	☆

Colour the stars when you think you have achieved this.

If you love reading and writing and want more of a challenge you can keep writing stories based on your own ideas or other books you have read.

Or explore

www.lovereadings4kids.co.uk or www.newsela.com to find more extracts to read and write about.

Monday 8th June 2020

Year 5 - My Cousin is a Time Traveller - Chapter 1 - Day 1

Reading

Before reading:

Predict what you think the story might be about based on its title.

During reading:

Collect the names of every new character you meet.

After reading:

Which character do you think is the most important and why?

Tuesday 9th June 2020

Year 5 - My Cousin is a Time Traveller - Chapter 1 - Day 2

Writing

Write a balanced argument. In paragraph 1, give 3 reasons why it would be good to be a superhero. In paragraph 2, give 3 reasons why it wouldn't be good.

In your conclusion, decide whether you would rather have superpowers or not.

Wednesday 10th June 2020

Year 5 - My Cousin is a Time Traveller - Chapter 1 - Day 3

Grammar

Which sentence should end with a question mark?

- a) What we ate for dinner was very unusual
- b) Can you guess what we ate for dinner
- c) Ask me what we ate for dinner

Replace the underlined words with the correct pronoun.

When Sara came to the end of the road, Sara turned right.
The pavement had a large hole and Sara fell into the hole.

Rewrite the underlined words in their contracted form.

I cannot believe we won!
Mum said we should not eat sweets before dinner.

Circle the adverbs in this passage.

Silently, I wandered down the lonely road. I could hear the wind howl loudly as I passed through the trees.

Insert the correct coordinating conjunctions.

I like coffee _____ tea _____ I don't like hot chocolate.

Thursday 11th June 2020

Year 5 - My Cousin is a Time Traveller - Chapter 1 - Day 4

Spelling

Practise each word. Choose two and write their definitions.

Choose two to write in sentences.

available
awkward
bruise
cemetery

average
bargain
category
committee

competition
conscience
community
communicate

DAVID SOLOMONS

MY COUSIN IS A TIME TRAVELLER

AND MY
TOASTER IS
TAKING
OVER
THE
WORLD...

BY THE
WINNER OF THE
WATERSTONES
CHILDREN'S
BOOK PRIZE



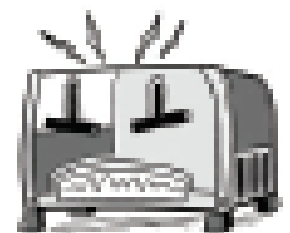
nosy
crow

1

THAT'S THE WAY THE WOOKIE CRUMBLES



I leaned on my bedroom windowsill and gazed out at the searchlight's vivid beam reaching up from the roof of the Civic Centre, illuminating the underside of the clouds with the letters "SL". They stood for Star Lad. To the wider world he was a superhero, but I knew him as Zack Parker, my big brother. So far, during his short career, he'd saved Earth from, in order: a giant asteroid and a comic-book-store-owning supervillain; alien invaders disguised as my gym teacher; a world-eating Top Trump card; my Evil Twin; and a particularly annoying brain-in-a-jar and her sister. Those were his big, end-of-the-world missions, but in his role as



Earth's saviour he also carried out a host of lesser duties in between. He was out there now, no doubt rescuing some small child from a rampaging robot, or catching a falling plane, or rounding up some criminal kingpin and his henchmen.

There was a distant rumble and the horizon burst into light, the explosion sending bright-orange flames into the sky to silhouette the rooftops of our home town of Bromley.

Had to be Zack.

I might learn the details of tonight's adventure when he returned later, but in all likelihood the only thing I'd get from him would be a grunt as he pushed past me to the fridge for a snack. He was always hungry after a mission. That was his style: peckish after, and reluctant before. He'd never wanted the responsibility of being a superhero, not from that first moment when a purple-caped, egg-headed alien called Zorbon the Decider had chosen him to save the world. Zack couldn't see the point of having powers and it was never far from his thoughts. Earlier that evening he'd brought it up for the gazillionth time.

"And another thing," he'd said as we washed up the dinner dishes together. "Superheroes are expensive."

"But you don't get paid," I reminded him. "You're a

free service. Like that antivirus software Dad uses.”

“Yes, but there are costs associated with my exploits. Have you read the council’s latest annual report?”

“Is this a trick question?”

He scrubbed vigorously at the bottom of a pot. “It’s all in there. Itemised. The clean-up bill from just one interdimensional monster attack means they’ve had to find savings elsewhere in the budget. Did you know we’re down to a fortnightly bin collection?”

I did not. And I didn’t care.

“That’s not all.” He was getting into his stride. “I am just one hero, which means I can only deal with one incident at a time.”

“But you’re not alone. You’ve got Dark Flutter.” That was the superhero identity of our neighbour Lara Lee. She too had been turned into a superhero by Zorbon, but her powers were rather more limited than Zack’s. Essentially, she could talk to fluffy animals.

“Fine, so there are two of us. Great.” He shrugged. “So let’s take firefighting, just as an example. Think how many more fires twenty new firemen could deal with compared with just two superheroes. See, we’re expensive and inefficient.”

Studying the blaze on the horizon I caught a whiff of burning in the night air and I thought about what

Zack had said. Were superheroes a waste of money? But without Star Lad, Earth would've been flattened by a giant asteroid, invaded by aliens, swallowed whole, or ripped apart by quantum forces. That stuff was more important than a weekly bin collection. And anyway, I liked living in a world with superheroes.

I yawned. My best friend, Serge, says that I sound like an exhausted Wookiee when I yawn. It had been a long day; I'd expended a great deal of effort in avoiding a significant amount of maths and English homework. Before I went to bed I made sure to leave the window wide open for Zack to fly through when he did eventually come home. In that regard he was a bit like Peter Pan, but without the green tights and the curious attachment to fairies. Like the rest of the world, I felt safe with him out there. But unlike them, I realised as I rested my head on my Spider-Man pillow, I felt safe with him in here too. And as I drifted off into a superhero dream-filled sleep it struck me, not for the first time, that I liked living in a world with Zack. Not that I'd ever admit it to his face.

“Wake up.”

I was flying in my dreams when Zack's voice brought me down to earth like a well-aimed kryptonite-tipped

arrow. I sat up in bed, startled by the urgency of his tone. My eyes slowly adjusted to the fuzzy dark. The streetlight outside my still-open window splashed an orange glow across the bedroom floor where I saw Zack pacing anxiously. He was wearing his Star Lad costume and his cape flicked out as he turned. His mask was pushed off his face and rested against his forehead. I glanced at my Green Lantern alarm clock on the bedside table. Three a.m.

“Must have been some night,” I said. “You want to tell me about it?”

He peeled off the cape and folded it neatly into a square, tucking it under one arm. “False alarm. They didn’t need me.”

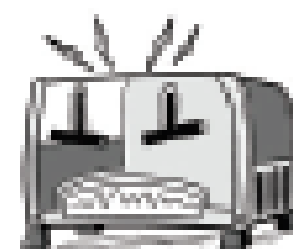
“But what about the explosion and the fire?”

“Someone was burning rubbish in their garden and it got out of control.” He removed his mask. “The fire brigade dealt with it.”

I propped myself up on my elbows. “So what have you been doing all this time?”

“Thinking,” he said. I didn’t like the way he said it. “I sent a message to Zorbon using my telepathic power. I’ve asked him to come over tomorrow.”

That was weird. Usually Zorbon showed up unannounced with a dire prophecy about the end of the



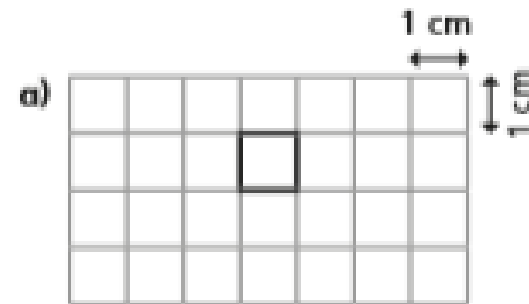
world, which inevitably led to a mission for Star Lad and the rest of us. To my knowledge this was the first time that Zack had called him. I felt a creeping sense of unease.

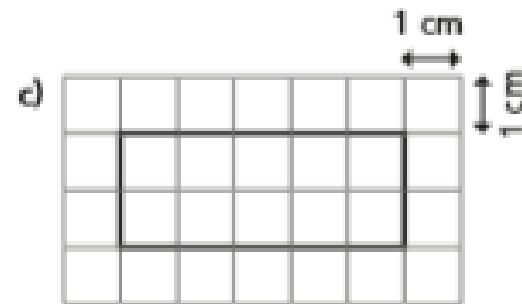
“Luke, I’ve made a decision.” Zack paused, and by the light of the streetlamp I could see his face knot up with concern. “I’m getting rid of my superpowers.”

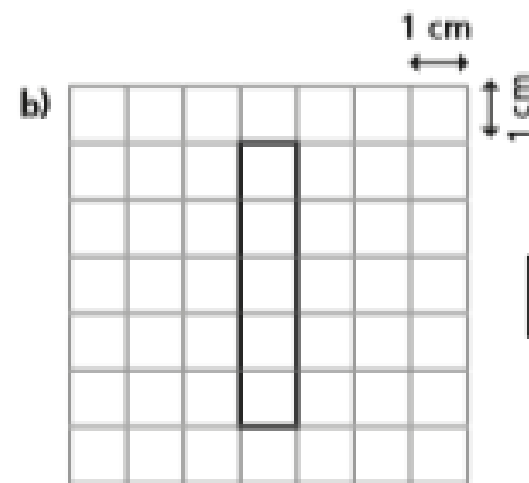


Area of rectangles

- 1 On the grid, the area of each square is 1 cm²
Calculate the area of each rectangle.







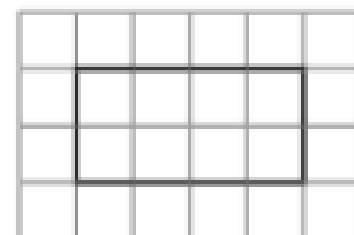
- 2 Complete the sentences to describe the rectangle.

There are rows.

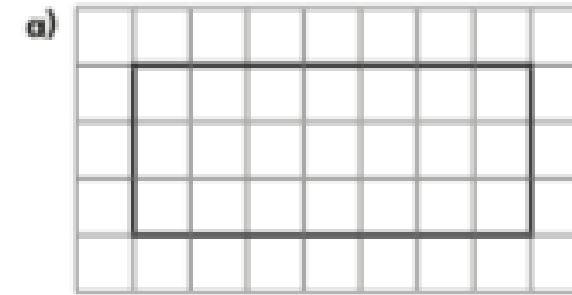
Each row has squares.

There are squares altogether.

$$\square \times \square = \square$$

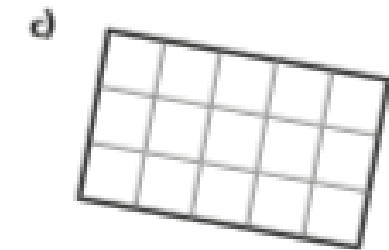


- 3 The area of each square is 1 cm²
Work out the area of each rectangle.



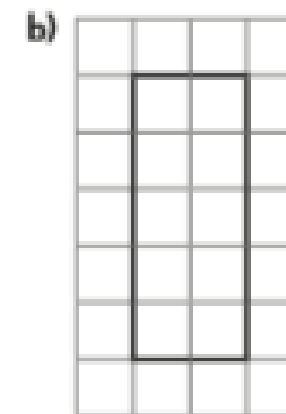
$$\square \times \square = \square$$

$$\text{area} = \square$$



$$\square \times \square = \square$$

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$$\square \times \square = \square$$

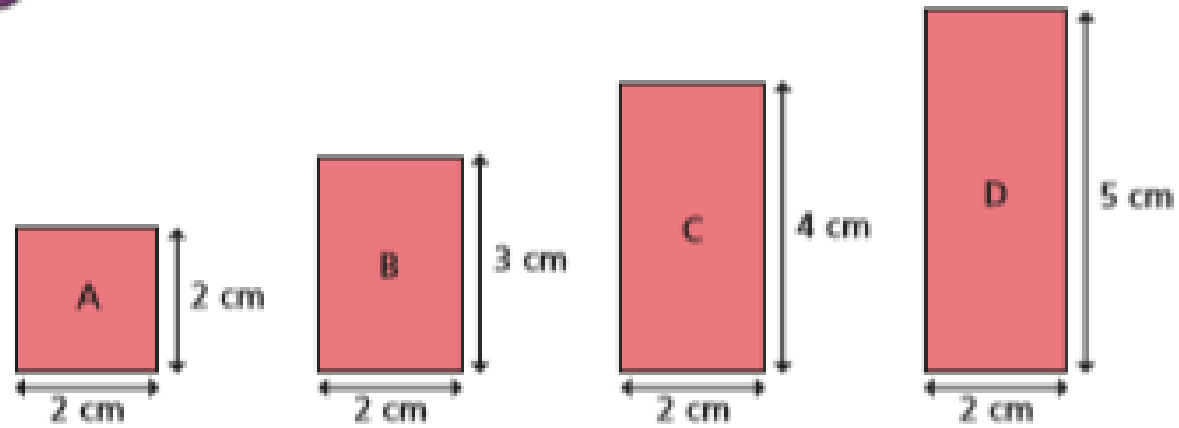
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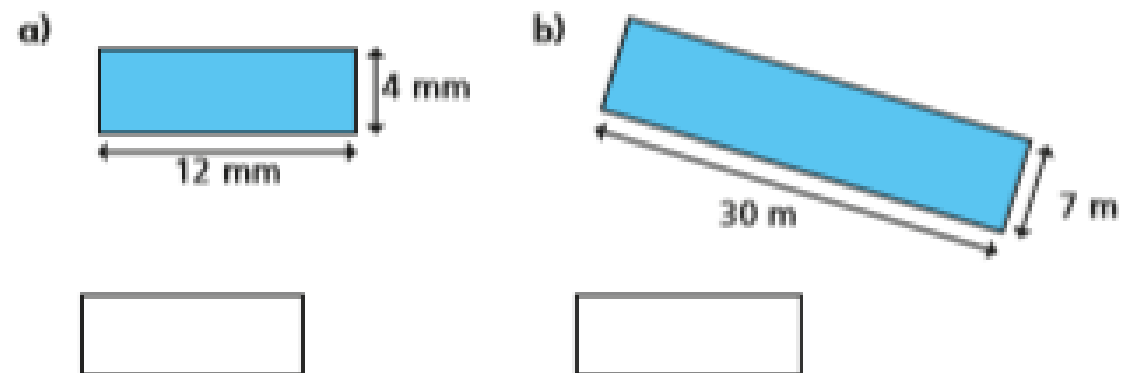
$$\text{area} = \square$$

4 Calculate the area of the rectangles.



A = cm² B = cm² C = cm² D = cm²

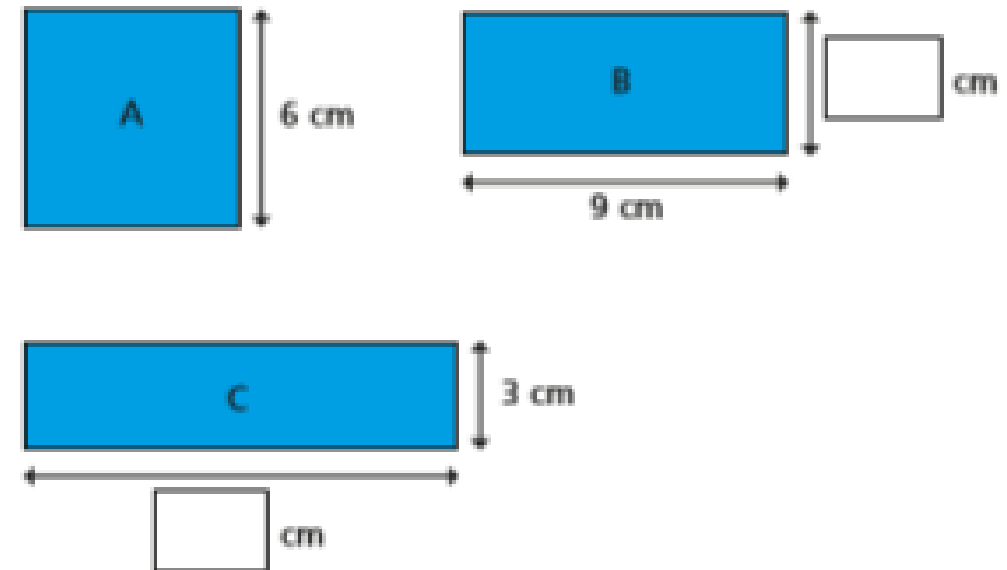
5 Work out the area of these rectangles.



6 How many rectangles can you draw that have an area of 24 cm²? Label the lengths. Your drawings do not have to be exact.

Compare your answers with a partner.

7 These shapes all have the same area. Shape A is a square. Work out the missing lengths.



8 A rectangle has an area of 96 cm². The length of the rectangle is 4 cm longer than the width. Work out the length and width of the rectangle.

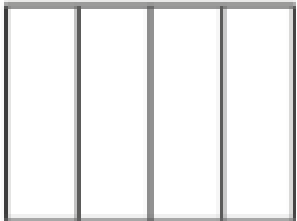
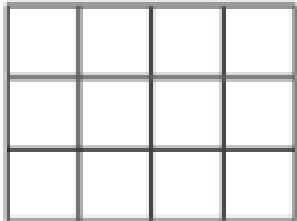
length = width =

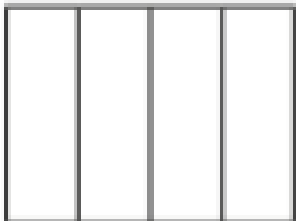
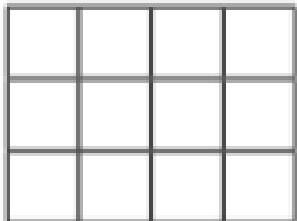




Equivalent fractions

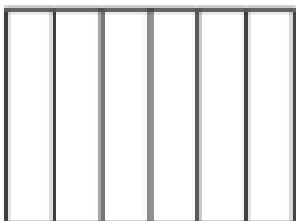
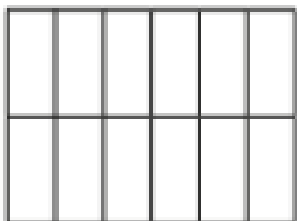


1 Shade the shapes to show the equivalent fractions.

a)   $\frac{1}{4} = \frac{\square}{12}$

b)   $\frac{3}{4} = \frac{\square}{12}$

c)   $\frac{1}{6} = \frac{\square}{\square}$

d)   $\frac{5}{6} = \frac{\square}{\square}$

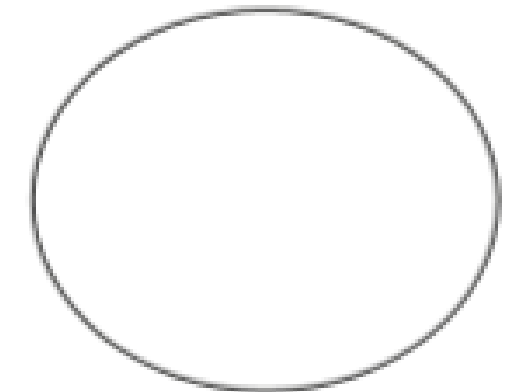
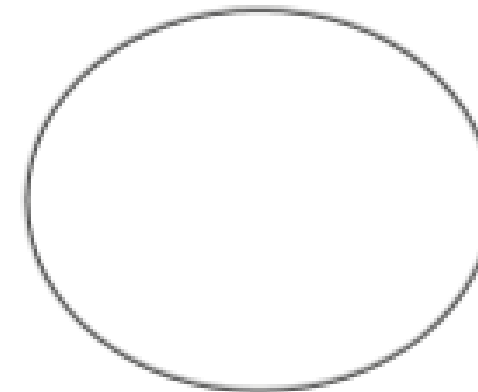


2 Draw two rectangles to show that $\frac{1}{3} = \frac{4}{12}$

3 a) Sort the fractions into the groups.

Equivalent to $\frac{1}{4}$

Equivalent to $\frac{1}{3}$



$\frac{5}{15}$	$\frac{2}{6}$	$\frac{3}{12}$	$\frac{6}{24}$	$\frac{8}{24}$	$\frac{5}{20}$	$\frac{4}{12}$	$\frac{2}{8}$
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b) Write one more fraction in each group.

4 Complete the equivalent fractions.

a) $\frac{1}{7} = \frac{\square}{14}$

d) $\frac{3}{4} = \frac{6}{\square}$

g) $\frac{2}{\square} = \frac{10}{15}$

b) $\frac{5}{7} = \frac{\square}{14}$

e) $\frac{3}{4} = \frac{12}{\square}$

h) $\frac{2}{\square} = \frac{10}{25}$

c) $\frac{7}{8} = \frac{14}{\square}$

f) $\frac{3}{4} = \frac{\square}{12}$

i) $\frac{2}{7} = \frac{10}{\square}$

j) Describe the pattern in part g), h) and i) to a partner.



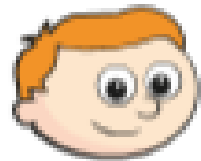
5 Find three ways to make the fractions equivalent.

a) $\frac{1}{\square} = \frac{7}{\square}$ b) $\frac{7}{\square} = \frac{14}{\square}$ c) $\frac{\square}{7} = \frac{\square}{14}$

$\frac{1}{\square} = \frac{7}{\square}$ $\frac{7}{\square} = \frac{14}{\square}$ $\frac{\square}{7} = \frac{\square}{14}$

$\frac{1}{\square} = \frac{7}{\square}$ $\frac{7}{\square} = \frac{14}{\square}$ $\frac{\square}{7} = \frac{\square}{14}$

6 Ron is finding equivalent fractions to $\frac{1}{4}$



$\frac{1}{4}$ is equivalent to $\frac{5}{8}$
and $\frac{9}{12}$

Do you agree with Ron? _____

Draw a diagram to support your answer.

Compare answers with a partner.



7 Here are some equivalent fractions.

Find the values of A, B and C.

$\frac{A}{9} = \frac{3}{B} = \frac{2}{18} = \frac{C}{90}$

A = B = C =

8 Here are three fraction cards.

All the fractions are equivalent.

$\frac{3}{A} = \frac{B}{14} = \frac{12}{C}$

$A + B = 13$

Work out the value of C.

C =

9 $\frac{1}{5} = \frac{3}{1 + \bullet}$

Find the value of \bullet

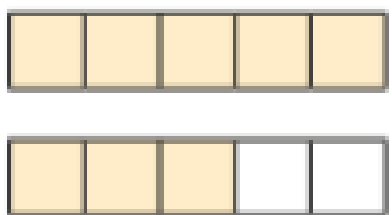
$\bullet = \text{$

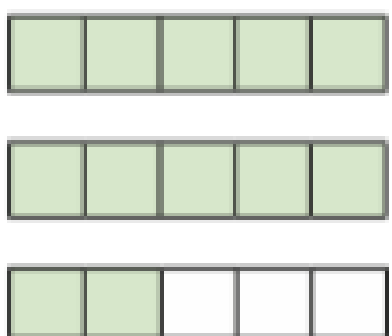
Improper to mixed numbers

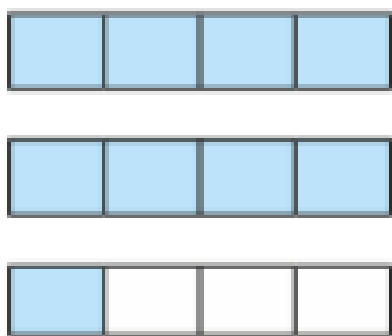
Rose Maths

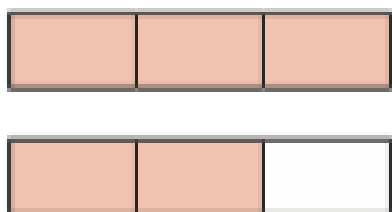


1 Convert the improper fractions to mixed numbers.

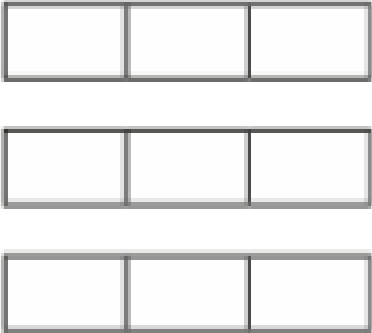
a)  $\frac{8}{5} = \square$

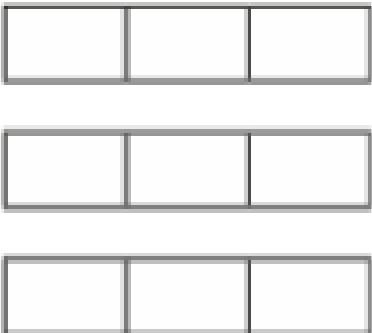
b)  $\frac{\square}{5} = \square$

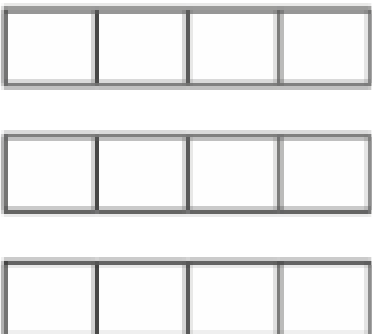
c)  $\frac{\square}{\square} = \square$

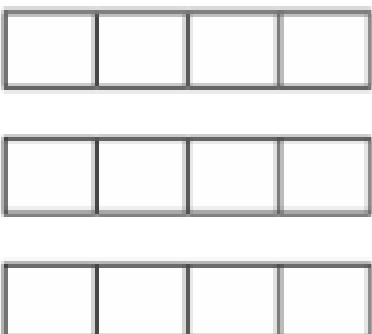
d)  $\frac{\square}{\square} = \square$

2 Shade the bar models to represent each improper fraction. Convert the improper fractions to mixed numbers.

a)  $\frac{7}{3} = \square$

b)  $\frac{8}{3} = \square$

c)  $\frac{9}{4} = \square$

d)  $\frac{11}{4} = \square$

3 Convert the improper fractions to mixed numbers.

a) $\frac{10}{2} = \square$

e) $\frac{12}{5} = \square$

b) $\frac{10}{3} = \square$

f) $\frac{13}{6} = \square$

c) $\frac{10}{4} = \square$

g) $\frac{13}{7} = \square$

d) $\frac{10}{5} = \square$

h) $\frac{31}{8} = \square$

4 Eva has 7 bottles of juice.

Each bottle contains half a litre of juice.



How many litres of juice does Eva have altogether?

Write your answer as a mixed number.

5 Dexter is converting improper fractions.



Explain why Dexter is incorrect.

6 Find the value of ●

$$\frac{27}{\bullet} = \bullet \frac{2}{\bullet}$$

$$\bullet = \square$$

7 Find two possible values for ★ and ▲

$$\frac{30}{\star} = \blacktriangle \frac{2}{\star}$$

$$\star = \square$$

$$\blacktriangle = \square$$

$$\star = \square$$

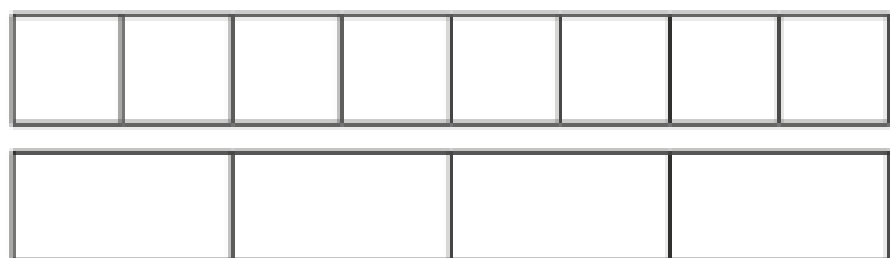
$$\blacktriangle = \square$$

Compare and order fractions less than 1

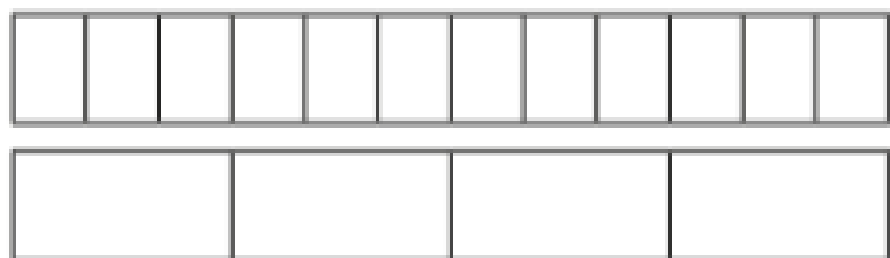
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1 Write <, > or = to compare the fractions.

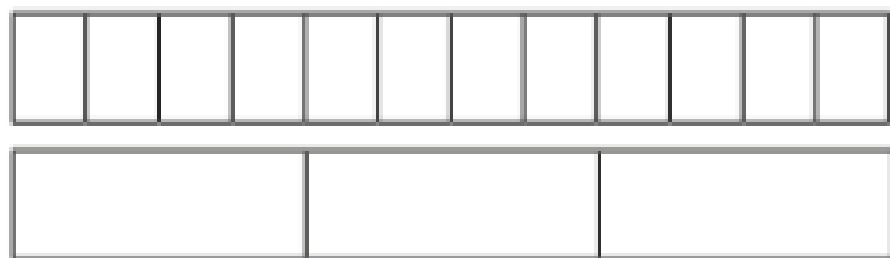
Use the bar models to help you.



$$\frac{7}{8} \bigcirc \frac{3}{4}$$



$$\frac{9}{12} \bigcirc \frac{3}{4}$$



$$\frac{7}{12} \bigcirc \frac{2}{3}$$



2 Write <, > or = to compare the fractions.

a) $\frac{1}{5} \bigcirc \frac{4}{15}$

g) $\frac{2}{9} \bigcirc \frac{1}{3}$

b) $\frac{2}{5} \bigcirc \frac{4}{15}$

h) $\frac{4}{9} \bigcirc \frac{1}{3}$

c) $\frac{2}{5} \bigcirc \frac{6}{15}$

i) $\frac{4}{12} \bigcirc \frac{1}{3}$

d) $\frac{2}{3} \bigcirc \frac{6}{15}$

j) $\frac{8}{12} \bigcirc \frac{2}{3}$

e) $\frac{2}{3} \bigcirc \frac{6}{12}$

k) $\frac{8}{12} \bigcirc \frac{3}{3}$

f) $\frac{2}{3} \bigcirc \frac{6}{9}$

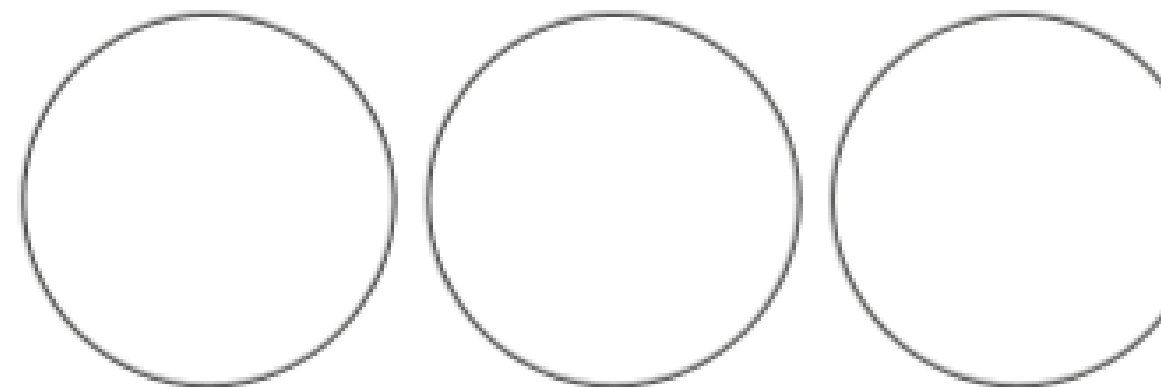
l) $\frac{8}{12} \bigcirc \frac{3}{4}$

3 Sort the fractions into the circles.

greater than $\frac{1}{3}$

equal to $\frac{1}{3}$

less than $\frac{1}{3}$



- | | | | | | | | | |
|---------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|
| $\frac{2}{3}$ | $\frac{1}{6}$ | $\frac{1}{2}$ | $\frac{2}{6}$ | $\frac{2}{9}$ | $\frac{5}{12}$ | $\frac{4}{12}$ | $\frac{4}{15}$ | $\frac{5}{15}$ |
|---------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|

4 What could the missing numerators and denominators be?

Write a number in each box to make the statements correct.

a) $\frac{\square}{5} < \frac{5}{15}$

d) $\frac{\square}{3} < \frac{5}{6}$

g) $\frac{6}{9} < \frac{5}{\square}$

b) $\frac{\square}{6} < \frac{5}{12}$

e) $\frac{3}{5} < \frac{5}{\square}$

h) $\frac{10}{12} < \frac{5}{\square}$

d) $\frac{\square}{12} < \frac{5}{6}$

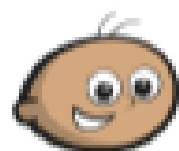
f) $\frac{5}{6} < \frac{5}{\square}$

i) $\frac{23}{24} < \frac{5}{\square}$

Compare answers with a partner.

5 Tommy and Eva are comparing fractions.

$\frac{2}{3}$ $\frac{8}{12}$ $\frac{4}{9}$



Tommy

I found a common denominator of 36 to compare the fractions.

I found a common numerator of 4 to compare the fractions.



Eva

Whose method is more efficient? _____

Talk about your answer with a partner.

6 Write the fractions in ascending order.

a) $\frac{2}{5}, \frac{2}{7}, \frac{2}{3}, \frac{2}{4}, \frac{2}{10}$

b) $\frac{2}{3}, \frac{5}{9}, \frac{1}{9}, \frac{5}{6}, \frac{2}{9}$

c) $\frac{3}{5}, \frac{7}{10}, \frac{1}{2}, \frac{3}{10}, \frac{1}{5}$

d) $\frac{3}{8}, \frac{6}{17}, \frac{12}{30}, \frac{2}{7}, \frac{1}{3}$

7 What could the missing numerator be?

$\frac{3}{5} < \frac{\square}{15} < \frac{9}{10}$

Write all four possibilities.

$\frac{\square}{15}$ $\frac{\square}{15}$ $\frac{\square}{15}$ $\frac{\square}{15}$

Add and subtract fractions

Rose Maths



1 Complete the calculations.

Use the bar models to help you.



$$\frac{4}{5} + \frac{3}{5} = \square = \square$$



$$\frac{6}{5} + \frac{3}{5} = \square = \square$$



$$\frac{8}{5} - \frac{6}{5} = \square$$



$$\frac{9}{5} - \frac{3}{5} = \square = \square$$

2 Complete the calculations.

a) $\frac{4}{7} + \frac{2}{7} = \square$

f) $\frac{17}{9} - \frac{8}{9} = \square = \square$

b) $\frac{4}{7} + \frac{3}{7} = \square = \square$

g) $\frac{16}{9} - \frac{8}{9} = \square$

c) $\frac{4}{7} + \frac{4}{7} = \square = \square$

h) $\frac{7}{9} + \frac{2}{9} + \frac{8}{9} = \square = \square$

d) $\frac{8}{7} - \frac{3}{7} = \square$

i) $\frac{7}{15} + \frac{2}{15} + \frac{8}{15} = \square = \square$

e) $\frac{7}{9} + \frac{8}{9} = \square = \square$

j) $\frac{7}{15} - \frac{2}{15} + \frac{8}{15} = \square$

3

$$\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$$

What could the missing numerators be?

Give six different possibilities.

$$\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$$

$$\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$$

$$\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$$

$$\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$$

$$\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$$

$$\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$$

4 Dora has $2\frac{3}{8}$ litres of juice.

She pours out $\frac{9}{8}$ litres of juice.

How many litres of juice does she have left?

Dora has litres left.

5 Fill in the missing numerators.

a) $\frac{3}{8} + \frac{\square}{8} = \frac{13}{8}$

g) $\frac{4}{7} + \frac{\square}{7} + \frac{4}{7} = 2$

b) $\frac{13}{8} - \frac{\square}{8} = \frac{7}{8}$

h) $\frac{5}{7} + \frac{\square}{7} + \frac{5}{7} = 2$

c) $\frac{13}{8} - \frac{\square}{8} = 1$

i) $\frac{6}{7} + \frac{\square}{7} + \frac{6}{7} = 2$

d) $\frac{11}{9} + \frac{\square}{9} = \frac{22}{9} = 2\frac{\square}{9}$

j) $\frac{14}{7} + \frac{\square}{7} + \frac{4}{7} = 3$

e) $\frac{11}{9} + \frac{\square}{9} = \frac{\square}{9} = 2\frac{2}{9}$

k) $\frac{15}{7} + \frac{\square}{7} + \frac{5}{7} = 3$

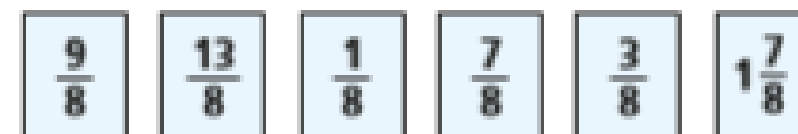
f) $\frac{22}{9} - \frac{\square}{9} = \frac{\square}{9} = 2\frac{2}{9}$

l) $\frac{16}{7} + \frac{\square}{7} + \frac{6}{7} = 4$

Compare answers with a partner. What do you notice?



6 Here are some fraction cards.



Use the cards to write pairs of fractions with a total of 2

+ = 2

+ = 2

+ = 2

7 Annie and Dexter both have a skipping rope.

Annie's rope is $\frac{3}{4}$ m shorter than Dexter's rope.

The ropes are $\frac{13}{4}$ m altogether.

How long is each skipping rope?

Annie's rope is m long.

Dexter's rope is m long.

