

Week (8.6.20 – 12.6.20) overview – Forces Part 2 – easier tasks

Hello Year 5!

We hope you are all still keeping well and safe at home. As we have welcomed back the Year 6s this week, we are still thinking of you all and missing you in school. Here is an overview for this week which carries on our learning around Forces.

Again we've tried to create some learning here that requires less / no screens. Nearly all the sheets enclosed can be done without using a screen. That said, the use of the internet here will teach more or clarify. The Education City online task before any sheets here will, most likely, be beneficial. If/when using Education city online, the tasks are also in the "My Classwork" folder ready and waiting to be used.

Remember to let us know how you are getting on and please do email us with any questions or queries or to show us the work that you have done. We love hearing from you.

Many thanks and best wishes, The Year 5 team

<u>Day</u>	<u>Subject</u>	<u>Name of Activity</u>	<u>What are we learning?</u> Description of what to do (only if needed – most of this is obvious from the sheet but look here if stuck)
1	Reading	Newton and Gravity Fact Sheet	Can I clarify unknown words?
1	Writing	Terrifying Temple Ed City (TF ☺)	Can I distinguish the spelling and meaning of common homophones? Try the online activity if you can then read through the worksheet carefully to work out the correct meanings. Use the answers to check and make a note of those that you get wrong. These will be important words to learn.
1	Maths	Snow Hope Ed City (Not TF ☺)	Can I use the times tables that I know to work out other facts? This is a chance to practice your times tables knowledge. It might help to write out your times tables first. Remember: $40 \times 8 =$ think about 4×8 first and then multiply by 10 $54 \times 2 =$ think about 50×2 and then 4×2 and put the two together.
1	Science	Bounce Factor	Can I explore the effect of different surfaces on a bouncing ball? An investigation into how different surfaces effects how high different balls will bounce.
2	Writing	Caught on the court Ed City (TF ☺)	Can I spell words that are often misspelt?
2	Reading	Newton and Gravity Fact Sheet Questions	Can I answer retrieval and inference questions? Answer the questions based on the reading from yesterday.
2	Science	Who's got the Fastest Car?	Can I explore the effects of friction on different surfaces? Pushing a toy car along different surfaces to see which is the smoothest.
2	Maths	Mrs Cow's Milk Ed City (Not TF ☺)	Can I multiply and divide by 10, 100 and 1000?
3	Reading	An Audience with Isaac Newton Ed City (TF ☺)	Can I keep a positive attitudes to reading and understand what I have read? Try the activity online if you can, and then read through and learn to perform the poem about Isaac Newton's discoveries. You will be performing this tomorrow so make sure you understand all of the words ready to perform.
3	Writing	Gravity	Can I gather ideas for writing a diary? Looking at a picture to get ready to write a description on Friday. Draw a similar picture of a classroom.

3	Maths	The Sea Waved Back Ed City (TF ☺)	<u>Can I solve word problems using multiplying skills?</u>
3	Music	Holst's Planet Suite	<u>Can I explore how music makes me feel?</u> Listening to "Mars" by Gustav Holst and responding in your own way.
4	Reading	An Audience with Isaac Newton.	<u>Can I read and perform a poem?</u> From your reading yesterday, prepare a performance for your family of either the poem or the play, or both! Can you learn some of it off by heart? Do you need to make any props or resources to add to your performance?
4	Writing	Gravity	<u>Can I plan my ideas for writing a description?</u> Planning and preparing for writing a description based on the picture called Gravity
4	Maths	Factors and Multiples Game No ed city for this	<u>Can I find factors and multiples of numbers?</u> Go to this website to hear how to play or see the pack with the grid and instructions. http://www.iscemaths.com/maths-games/
4	Science	How to make a parachute	<u>Can I explore the effects of air resistance?</u> How to make a parachute and explore how to make fall it different speeds.
5	Reading	Fri-Yay reading	Take some time to read your reading book or whatever you are reading at present to your teddy bear / pet / relative over an online chat / someone at home.
5	Writing	Gravity	<u>Can I write a description?</u> Writing the description, based on the picture Gravity, that you have planned for yesterday.
5	Maths	Multiplication Skills catch up	The Master and Master Master question sheets have been included in this pack – can you do them each correctly? Can you do them in less than 5 minutes? Then use Mathletics or Education city (see below) <u>Can I practice an area of learning I am finding hard?</u> USE MATHLETICS FOR THIS – NOTHING IN THE PACK TO GO WITH THIS Use Mathletics to work on an area of learning you find challenging – fractions perhaps or converting measures – two areas that many of you find a challenge.
5	Science	Egg Drop Challenge	<u>Can I use what I know about forces to design a system to protect an egg?</u> Use whatever materials you might have at home to create a system for dropping an egg from a height without it breaking or cracking. Make sure you talk to an adult about your plans before you start!

Useful Websites to accompany the learning for this week

<u>Description</u>	<u>Link</u> – easy to click on an onscreen copy, but if working from a paper copy the TinyURL will take you to the same place and is less complicated to type in	<u>Tiny URL</u> – shorter link, easier to type in if working from a paper copy
Holst's Planets Music link	https://www.bbc.co.uk/programmes/p02fls7d	http://tinyurl.com/y7myzfkd
Introduction to Gravity, links to other vocabulary	https://www.bbc.co.uk/bitesize/topics/zf66fg8	https://tinyurl.com/ydxdy88l
Explanations of different forces	https://www.dkfindout.com/uk/science/forces-and-motion/what-is-force/	https://tinyurl.com/y83xdugq

Maths reminders for this week

Factors

Factors are numbers that divide exactly into another number.

For example, the factors of 8 are:

1, 2, 4, 8

Factors can be shown in pairs. Each pair multiplies to make 8.

The factor pairs of 8 can be shown:

$$1 \times 8 = 8$$

$$2 \times 4 = 8$$

Multiples

Multiples are really just extended times tables.

The multiples of 2 are all the numbers in the 2 times table, such as 2, 4, 6, 8, 10 and so on.

Multiples of 2 always end with a 2, 4, 6, 8 or 0. You can tell 2286, for example, is a multiple of 2 because it ends with a 6.

The multiples of 5 are all the numbers in the 5 times table, such as 5, 10, 15, 20, 25 and so on.

Multiples of 5 always end with a 5 or a 0. You can tell 465, for example, is a multiple of 5 because it ends with a 5.

Newton and Gravity Fact Sheet

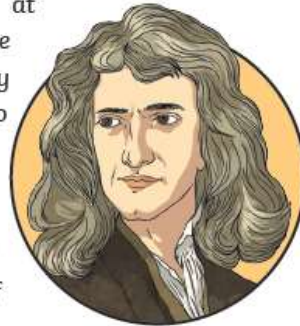
an expert in maths



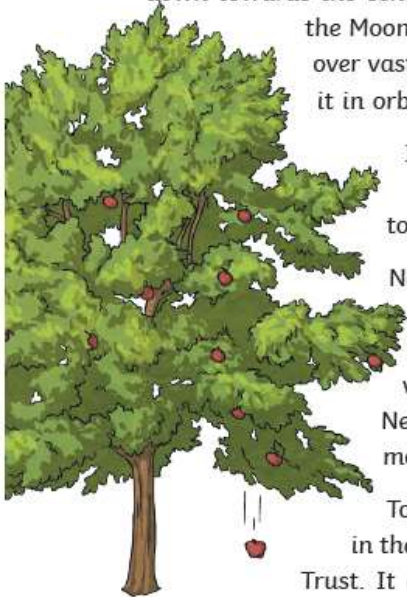
Isaac Newton was an English scientist and mathematician. He made many discoveries in his lifetime. One of the most important and influential discoveries that he made was the law of gravity.

Newton was born in 1643 at Woolsthorpe Manor in Lincolnshire. He worked hard at school, and was accepted to study at Cambridge University. He worked there for many years, but in 1665, the plague broke out and he was forced to move back to Woolsthorpe Manor.

While Newton was in the garden at Woolsthorpe Manor one day, he saw an apple fall from a tree. Some say it fell on his head but there is no evidence that this definitely happened. The sight of the apple falling down from the branch to the ground inspired Newton to think about the way it fell. Years later, he told his friend William Stukeley that he wondered why the apple fell down rather than sideways or upwards. He concluded there must be a 'drawing power' in the Earth and that 'the sum of the drawing power must be in the Earth's centre, not in any side of the Earth.'



Newton spent a lot of time thinking hard about the force of gravity, and how it pulls objects down towards the centre of the Earth. He was particularly interested in the way the Moon orbits the Earth, and he reasoned that gravity must extend over vast distances, pulling the Moon towards the Earth and keeping it in orbit.



In 1687, Newton published his discoveries about gravity in his famous book, *The Principia*. His findings are known today as Newton's Law of Universal Attraction.

Newton died in 1727, but his legacy lives on. All forces are measured in newtons (N), using a newton meter – both of which are named after Isaac Newton. Even Albert Einstein, writing in 1927, 200 years after Newton's death, described Newton as a 'shining spirit', and claimed he had one of the most brilliant minds of anybody who had ever lived.

Today, the apple tree that inspired Newton's ideas still grows in the gardens at Woolsthorpe Manor, now owned by the National Trust. It can be seen from the window of the room that was Isaac Newton's bedroom.

TASK:

Underline any words that you do not know.

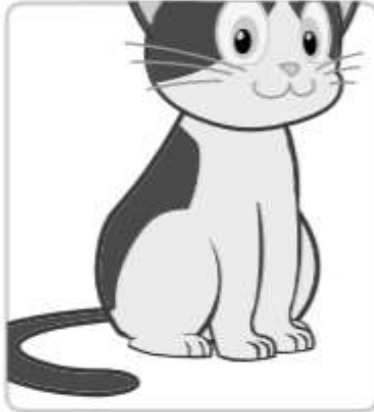
Look these words up in a dictionary and label the meaning around the text.



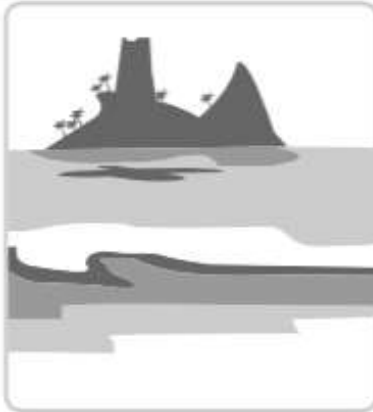
Name: _____

Class: _____

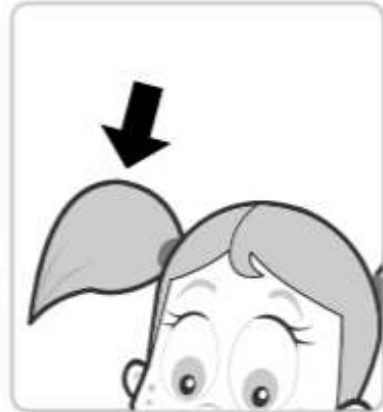
Look at the picture and colour in the correct homophone.



pause paws



sea see



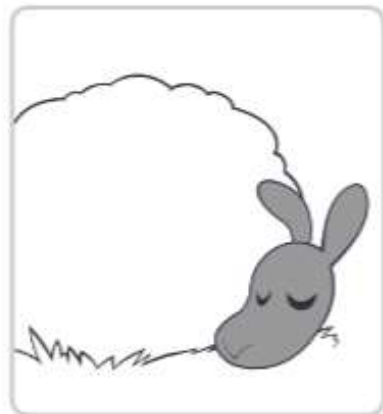
hare hair



sale sail



made maid



ewe you

Read the short story and colour the correct homophones to complete it.

Last _____ Stig, Sten and Granny had a great adventure on the _____.

week weak

sea see

They decided to _____ a boat. It was a _____ boat _____ from

hire higher

sale sail

maid made

_____. Stig and Sten were not quite sure what to _____ on

wood would

wear where

_____ trip but Granny told them that they must _____ life jackets.

there their

wear where



Name: _____

Class: _____

Read the short story and colour the correct homophones to complete it.

When they were ready to _____ the boat, Granny checked that _____ life

bored

board

there

their

jackets were put on correctly. It was lucky that Granny _____

made

maid

_____ that they were safely dressed because they did not realise that _____

sure

shore

there

their

boat had sprung a _____. As they headed out to _____, water

leek

leak

see

sea

started to fill the boat. "_____ going to be okay," Granny told the boys.

Where

We're

"Look over _____. I can _____ the lifeguard. They will help us."

they're

there

see

sea

_____ enough _____ lifeguard boats came to their rescue and towed

Shore

Sure

too

two

_____ boat back to _____.

there

their

shore

sure

When they were safely back on dry land, what a _____ they had to tell

tail

tale

_____ friends.

they're

their





Name: _____ Class: _____

Draw a line to match the questions in the snowballs to the answers in the fish.



50×5

60×7

20×9

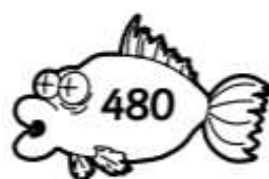
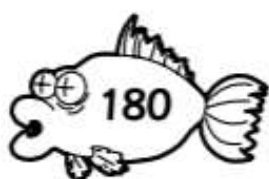
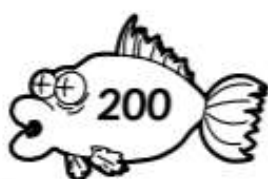
80×6

40×5

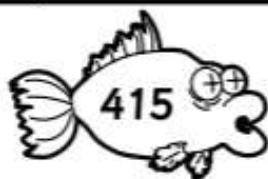
30×8

70×3

90×6



Draw a line to match the questions in the snowballs to the answers in the fish.



56×2

29×4

44×3

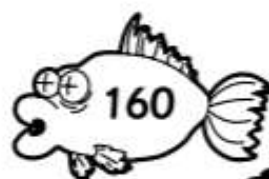
83×5

67×3

99×2

71×4

32×5



Get digit cards 1 to 9 and shuffle them. Choose three numbers and write down a two digit number multiplied by a single digit number. Work out the answer.
What other sums can you make using the same three cards?

384 Bounce Factors

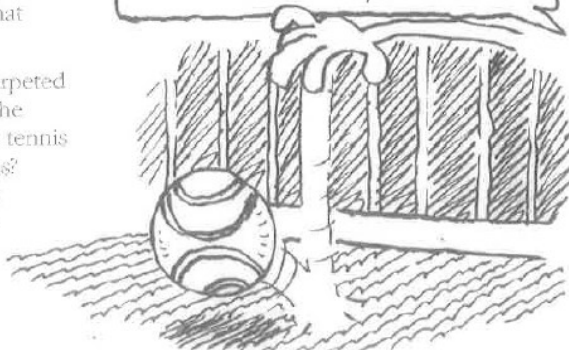


How do different surfaces affect the bounce of balls?

STEPS

1. In the hard floor area bounce the basketball and then bounce the tennis ball. What happens?
2. Now go to a carpeted area and bounce the basketball and the tennis ball. What happens? Why do you think the balls bounced differently in the different places?

I think I know how why my mum didn't let us bounce our ball on the living room carpet. Because it doesn't bounce very well.



Materials

- basketball
- tennis ball
- carpeted floor area
- hard floor area

Did You Know?

When a ball is falling it still maintains the energy it starts with. When it hits a soft surface like carpet, some of the ball's energy is absorbed into the carpet because it is spongier. When a ball hits a hard surface it only loses a very small amount of its energy.

Try this investigation using any ball you can find and try bouncing on different surfaces. Can you find a way of recording the height that the ball bounces to? Perhaps you could see how far up your body it bounces to, such as up to your knee or use a tape measure or ruler if you have one. You can use the table below to record your measurements. What do you notice?

Type of ball e.g. tennis ball	Surface 1 e.g. hard floor		Surface 2 e.g. hard floor	Surface 3 e.g. hard floor	Surface 4 e.g. hard floor



Name: _____

Class: _____

Circle the incorrect homophones in this piece of text.
There are 17 homophones to find.

It was the day of the **fare/fair**, and Stig was waiting for Granny to return from her holiday. He was hoping that the **plane/plain** wouldn't be delayed at the airport, as Granny had **mist/missed** all the fun the year before, when she had hurt her arm and it didn't **heel/heal** in time for her to go.

Just after lunch, Mum said she could **hear/here** the doorbell, so Stig ran to the door to open it.

"I didn't know **whether/weather** you would make it or **knot/not!**" exclaimed Stig when he saw Granny standing there.

"I couldn't **weight/wait** to get home to take you, I think we will have a **great/grate** time," replied Granny with a big smile on her face.

Not long after, they arrived at the fair and Granny let out a **groan/grown**, when she saw how long the queue to pay was. They had to **except/accept** that it would be a while before they would get to see all the stalls. Eventually, they made it to the coconut stall and Stig threw a **bawl/ball** and the coconut broke in two. Granny was so excited, she jumped in the air and dropped her glasses, but luckily they didn't **brake/break**. Next they went to get some candy floss. When Stig finished his, he went to **steel/steal** a **piece/peace** of Granny's, but she laughed and wouldn't let him.

After they had been to all the stalls, they were both tired and **wary/weary**, so they decided to go home.

"I think we have **scene/seen** everything," said Granny. "It's been a fun day, now time for a cup of tea!"



Name: _____ Class: _____

Insert the correct homophone in the sentences below.

Tip: The missing words are homophones of the words used in the text above.

- 1 They had to pay the correct _____ on the bus.
- 2 She tied a _____ in the string.
- 3 The bridge wouldn't break because it was made of _____.
- 4 The _____ was lovely on holiday.
- 5 The children had _____ tall over the holidays.
- 6 "Come over _____." called Stig.
- 7 "Please _____ the cheese on the pizza," said Granny.
- 8 The cat was _____ of the dog.
- 9 The _____ was swirling around the trees.
- 10 Granny used the _____ flour to make cookies.





Newton and Gravity

1. When was Isaac Newton born?

2. Why did Newton move from Cambridge to Woolsthorpe Manor?

3. What fruit did Newton see falling from a tree?

4. In which direction does gravity pull objects?

5. Why does the Moon stay in orbit around the Earth?

6. What are forces measured in?

7. What did Albert Einstein think of Isaac Newton?

8. What can still be seen from Isaac Newton's old bedroom window?

364 Who's got the Fastest Car?

See the effects of friction on different surfaces.

STEPS

1. Take the toy car and push it along the surface of the wood.
2. Now push the toy car along the strip of sandpaper.
3. Now push the toy car along the carpet. On which surface does your car run the smoothest?

Did You Know?

Cars skid on wet roads because the water on the surface creates less friction between the wheels and the road. The treads on your car's tyres help solve this problem. The water is forced into the spaces between the treads and the tyre surface stays on the road. 'Bald' tyres are not safe. Inspect your family car's tyres and see how the water is moved out of the way.

Materials

- long strip of sandpaper
- long, smooth piece of wood
- long stretch of smooth carpet
- small toy car



Try different materials for your car to drive along. Don't worry if you don't have the exact materials listed above, you could try different fabrics or different floors. Can you make a ramp with different materials and explore how far your car will travel across the different materials?



Name: _____ Class: _____

Complete the sums by matching the number sentences with the numbers on the buckets.
One has been done for you.

$6400 \div ? = 64$



100

$9000 \div ? = 90$


$85 \times ? = 8500$



10

$1100 \div ? = 110$

$32000 \div ? = 32$



1000

$980 \times ? = 9800$

The answer has been done for you. What is the question?
Make up three sums of your own below by writing the numbers on the buckets.
Don't forget the symbol.

1



=

10



2



=

100



3



=

1000



A poem based on Isaac Newton's theory of gravity.

Your task:

Read through the poem several times. Find out the meaning of any unknown words.

Think about preparing to perform this poem to someone at home or over an online call. You will be performing as if you are Isaac Newton. Think about how he would stand and how his voice would sound.

You could try and learn some of the poem off by heart.

An object in motion wants to stay in motion,
An object in rest wants to stay in rest,
The theory of gravity is my notion,
With a brilliant mind I have been blessed.

Gravity affects the currents of the ocean,
Its tides that ebb and flow,
From stars in the sky and the Moon's motion,
To the bouncing ball you throw.

If I have seen further, I'd say,
It is by standing on the shoulders of giants,
Previous scientists of their day,
Kepler and Galileo, great Masters of Science.

I am only a child playing on the beach,
Vast oceans of truth lie undiscovered before me
Limitless knowledge the world must teach,
Of the law of motion and the force of gravity.

Can I gather ideas for writing a description?

Over the next few days, you are going to prepare to write a description as if you lived in this place. Today is about gathering ideas for your writing.



TASK 1:

Question Time – you could talk to someone about your ideas or write them down if you wish.

If you lived here how would life be different?

It is thought that one day it may be possible to live in on another planet. What do you think about this?

Is it a good idea?

Why do you think humans are looking for ways to live in space or on another planet?

How does gravity work?

How do we overcome gravity?

If living in space, how would you manage to do everyday things like brushing your teeth?

TASK 2:

Draw what a classroom in space would look like?

You will be able to include this in your description as well



The Sea Waved Back

Activity Sheet



EducationCity

N

Read and answer the questions in the spaces provided. Write the calculation you used to answer the question.

- 1 There were 23 people on the boat.
They all had 3 bags each.
How many bags were there altogether?

- 2 Sten found 8 boxes in the shipwreck.
Each box had 21 pieces of treasure in.
How many pieces of treasure were there altogether?

- 3 Manu spotted 18 fish.
Each fish had 4 spots.
How many spots were there altogether?

- 4 There are 34 fish in each of the tanks.
There are 5 tanks on the boat.
How many fish are there altogether?

- 5 Manu spots 15 fish.
Each fish has 4 fins.
How many fins do the fish have altogether?

- 6 There are 48 people on the sea expedition.
They are split into groups of 4.
How many groups are there altogether?

- 7 Sten and Manu share the treasure that they have found.
There are 64 pieces.
How many pieces of treasure do they each get?



The Sea Waved Back

Activity Sheet



EducationCity

Name: _____ Class: _____

- 8** 64 pieces of treasure need to be divided equally between 4 people.
How many pieces of treasure will each person get?

- 9** A boat will hold 8 people.
How many boats will be needed for 48 people?

- 10** There are 33 people on the boat.
They are split into groups of 3.
How many people are there in each group?

Can I listen and respond to music?

Watch the Ten Pieces film at <https://www.bbc.co.uk/programmes/p02fls7d> or <https://tinyurl.com/y7myzfkd>

Take a look at the music page on our school website for ideas from Mrs Malone on what you could do to respond to this music.

<https://www.st-marys-jun.hants.sch.uk/page/?title=Year+5+Music+Learning+at+home&pid=336> or
<https://tinyurl.com/y8svz227>

Can I plan for writing a description?

It has now been 2 years since I have moved here. It takes a lot of getting used to living with no gravity. My bedroom is my favourite place, however, it is not as you would imagine. I can have so much more of my treasured belongings because I can put things on the walls and ceiling too. My cosy comfortable bed rests against the wall where I like to sleep upside down.



Your task tomorrow will be to write a description of this picture, perhaps using the one above to get you started. Today, make some notes about what you might write about.

<p>Paragraph 1:</p> <p><i>Where do you live?</i></p> <p><i>What is there in your house?</i> <i>(describing using powerful adjectives and similes)</i></p>	
<p>Paragraph 3:</p> <p><i>What else is there in your life?</i> <i>(not in the picture)</i></p> <p><i>What is your school like? What does your classroom look like?</i></p>	

Word Bank:

bedroom	floating	topsy-turvy	checkered	upside down	
cabinets	drawers	gravity	ceiling	puzzling	confusing
distance	tables				

Can I find factors and multiples of a number?

Game time!

Factors and Multiples Game – you will need a partner to play this game or you could practice on your own. Start with an even number less than 12 to start. Cross this number out. Next, your opponent (or you if you are playing alone) has to cross out either a factor (a number you can use to multiply and make this number) or a multiple (a number you can make by multiplying this number). You can win if your opponent is unable to go. There are 5 boards here for you to have several games. Also see the instructions here: <http://www.iseemaths.com/maths-games/> (scroll to bottom of website)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24						

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24						

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24						

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24						

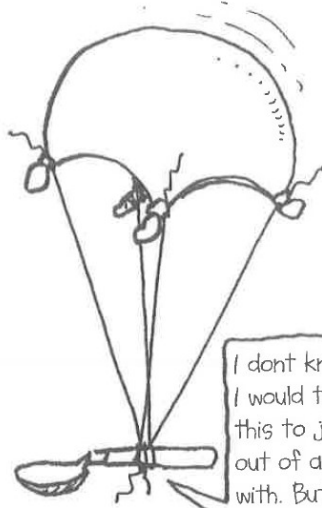
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24						

385 How to Make a Parachute

See the way pressure affects falling objects.

STEPS

1. Take the plastic bag and cut it into a 30 cm (12 in) square.
2. Tie the string to each corner of the square.
3. Tie the other ends of the string to the spoon.
4. Stand on a chair and drop the parachute. What happens?



Materials

- plastic bag
- 4 pieces of string, each 35 cm (14 in) long
- spoon
- scissors

Did You Know?

To make parachutes easier to control, a hole is made in the top. This hole lessens the air resistance.



Try out this investigation. *Please be careful as you stand on a chair, or ask someone taller than you to help you!*

What questions could you ask to explore how to change the parachute to make it fall at different speeds. Write your ideas below...

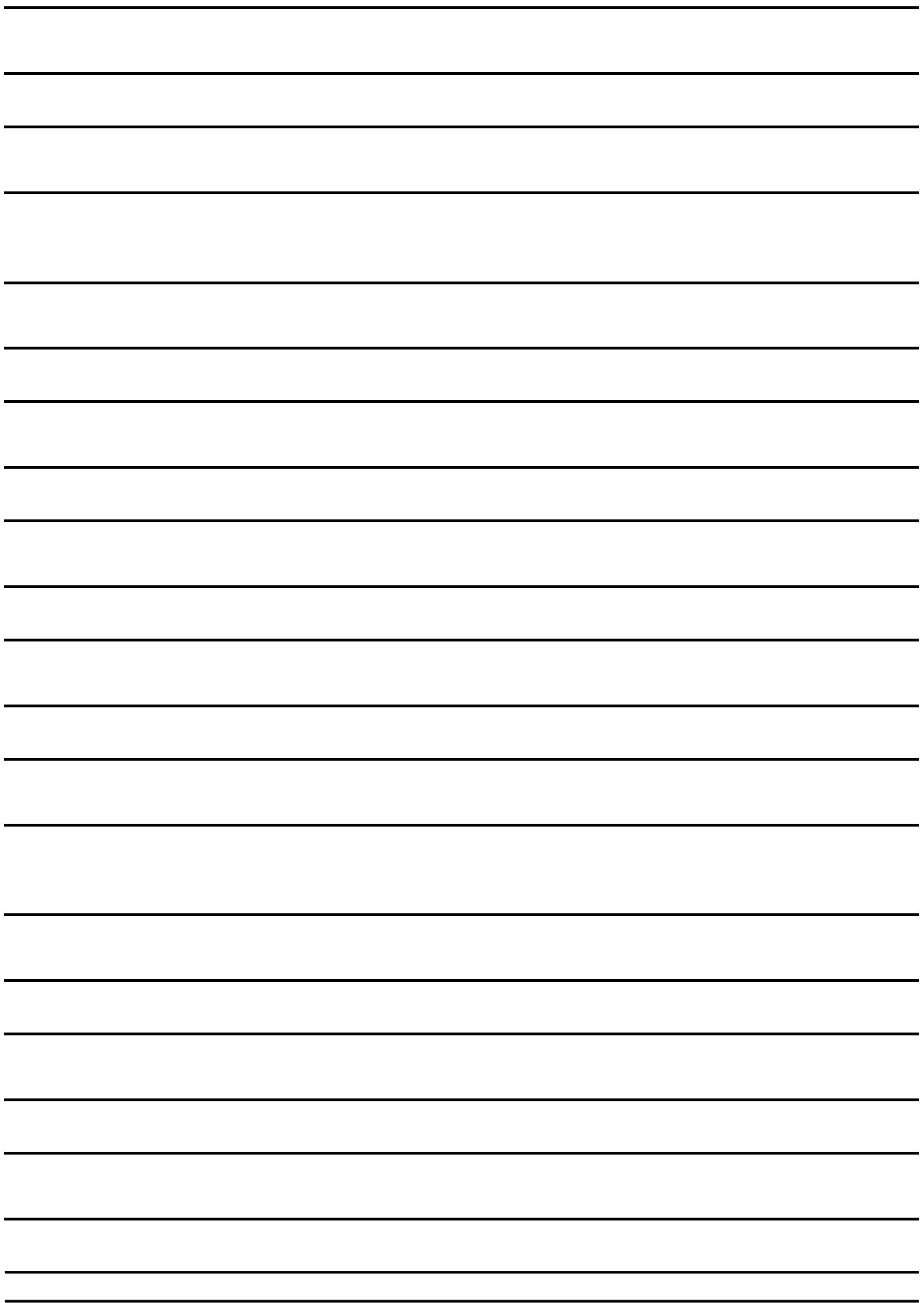
e.g. what would happen if I tried a lighter spoon.

Can I write a description?

Today you will use your planning to write a description. Think about describing things as much as you can to show what life is like without gravity.

It has now been 2 years since I have moved here. It takes a lot of getting used to living with no gravity. My bedroom is my favourite place, however, it is not as you would imagine. I can have so much more of my treasured belongings because I can put things on the walls and ceiling too. My cosy comfortable bed rests against the wall where I like to sleep upside down. My breakfast table is secured to the wall beside my bed. Imagine that, I can have breakfast almost in bed!

[illegible]



MASTERS CHALLENGE 2 x 2 =	24 ÷ 6 =	10 x 9 =
8 x 7 =	44 ÷ 4 =	8 x 12 =
3 x 3 =	3 x 4 =	8 x 8 =
5 x 4 =	4 x 4 =	54 ÷ 9 =
1 x 1 =	5 x 3 =	40 ÷ 8 =
48 ÷ 6 =	3 x 8 =	6 x 3 =
28 ÷ 4 =	60 ÷ 12 =	6 x 12 =
3 x 6 =	36 ÷ 3 =	3 x 6 =
4 x 7 =	4 x 11 =	4 x 12 =
4 x 5 =	3 x 5 =	9 x 5 =
9 x 7 =	9 x 11 =	9 x 12 =
42 ÷ 7 =	4 x 8 =	8 x 9 =
45 ÷ 5 =	12 x 11 =	12 x 12 =
5 x 6 =	9 ÷ 1 =	10 ÷ 5 =
3 x 7 =	10 x 3 =	6 x 6 =
2 x 9 =	9 x 9 =	90 ÷ 10 =
36 ÷ 9 =	8 x 3 =	10 x 10 =
121 ÷ 11	72 ÷ 9 =	10 x 3 =
1 x 7 =	66 ÷ 6 =	48 ÷ 4 =
8 x 4 =	1 x 10 =	54 ÷ 6 =
99 ÷ 9 =	6 x 5 =	108 ÷ 9 =
5 x 7 =	5 x 11 =	5 x 12 =
9 x 2 =	2 x 8 =	8 x 10 =
7 x 7 =	7 x 11 =	7 x 12 =
11 x 7 =	11 x 11 =	11 x 12 =
6 x 10 =	63 ÷ 7 =	3 x 9 =
3 x 7 =	3 x 11 =	3 x 12 =
8 x 5 =	4 x 10 =	18 ÷ 2 =
2 x 11 =	6 x 9 =	10 x 10 =
8 x 7 =	60 ÷ 5 =	12 ÷ 1 =
4 x 7 =	84 ÷ 7 =	9 x 7 =
88 ÷ 8 =	10 x 11 =	72 ÷ 6 =
10 x 7 =	10 x 11 =	10 x 12 =
3 x 12 =	120 ÷ 12 =	36 ÷ 3 =

Master Master Challenge

$72 \div 8 =$	$6 \div 1 =$	$56 \div 7 =$	$18 \div 2 =$
$64 \div 8 =$	$18 \div 3 =$	$24 \div 3 =$	$40 \div 8 =$
$28 \div 7 =$	$30 \div 6 =$	$8 \div 8 =$	$56 \div 7 =$
$9 \div 9 =$	$32 \div 8 =$	$12 \div 4 =$	$24 \div 6 =$
$54 \div 9 =$	$12 \div 4 =$	$35 \div 7 =$	$12 \div 2 =$
$40 \div 8 =$	$18 \div 6 =$	$15 \div 3 =$	$9 \div 1 =$
$1 \div 1 =$	$16 \div 8 =$	$56 \div 8 =$	$35 \div 7 =$
$63 \div 9 =$	$2 \div 2 =$	$36 \div 4 =$	$42 \div 6 =$
$27 \div 9 =$	$36 \div 4 =$	$9 \div 1 =$	$15 \div 5 =$
$16 \div 2 =$	$54 \div 6 =$	$12 \div 6 =$	$6 \div 1 =$
$7 \div 1 =$	$72 \div 9 =$	$36 \div 9 =$	$9 \div 9 =$
$12 \div 3 =$	$14 \div 2 =$	$30 \div 5 =$	$24 \div 6 =$
$27 \div 3 =$	$24 \div 4 =$	$6 \div 1 =$	$45 \div 5 =$
$10 \div 2 =$	$30 \div 6 =$	$48 \div 6 =$	$8 \div 4 =$
$16 \div 4 =$	$45 \div 9 =$	$2 \div 2 =$	$7 \div 1 =$
$3 \div 3 =$	$16 \div 4 =$	$21 \div 7 =$	$9 \div 9 =$
$18 \div 3 =$	$21 \div 7 =$	$9 \div 3 =$	$30 \div 5 =$
$40 \div 5 =$	$81 \div 9 =$	$30 \div 6 =$	$32 \div 4 =$
$32 \div 4 =$	$16 \div 2 =$	$14 \div 2 =$	$12 \div 3 =$
$24 \div 4 =$	$35 \div 5 =$	$56 \div 8 =$	$63 \div 9 =$
$45 \div 5 =$	$49 \div 7 =$	$36 \div 4 =$	$24 \div 8 =$
$40 \div 5 =$	$54 \div 9 =$	$18 \div 9 =$	$25 \div 5 =$
$20 \div 4 =$	$15 \div 3 =$	$20 \div 5 =$	$32 \div 4 =$
$48 \div 6 =$	$20 \div 5 =$	$24 \div 8 =$	$36 \div 9 =$
$54 \div 6 =$	$28 \div 7 =$	$24 \div 4 =$	$48 \div 8 =$

Can I use what I know about forces to design a system to protect an egg?

This could get messy, so make sure you talk to an adult about your ideas before starting! You will need a raw egg and to design a parachute or system to allow you to drop the egg from a height (preferably outside – maybe out of an upstairs window) and stop the egg from breaking or smashing. You can use any materials you might have around the house. Be sure to get someone to take some photographs – we would love to see your designs!

Egg Drop Challenge



Objective: Design a system to protect an egg from cracking or breaking from a high fall.

Materials: Use anything you'd like! Some ideas include: paper towels, straws, tape, cardboard tubes, paper, popsicle sticks, baggies or old boxes.

Illustrate your design in the box.

Explain why you think your design will protect an egg from breaking from a fall: