



Your HPS Home Learning Challenges

Suggested activities

Year groups: 5 and 6

Choose from the selection of activities provided or suggested below.

Reading	English
<ul style="list-style-type: none">• READ 20 minutes or more of your reading book.• Read the Titanic information text and complete the reading comprehension activity attached.	<ul style="list-style-type: none">• Complete at least one Doodle Spell session - - Get into the Green Zone if you can!• Practice your spelling and handwriting with the Year 5 - 6 key words activity sheet.• Complete the careful comma, punctuation challenge
Maths	S.O.L.E.
<ul style="list-style-type: none">• Complete at least one Doodle Maths sessions - Get into the Green Zone if you can!• Practice your column addition and subtraction problem solving skills using the activity sheet - remember to line those columns accurately.• Extra challenge: you may want to play the Nrich 'Estimating Angles' game - you could even challenge someone at home to see who can be the most accurate! Click this link: https://nrich.maths.org/1235	<p>Choose one or more of the following:</p> <ul style="list-style-type: none">• Science: read and complete the challenges as you learn about blizzards and how they form!• Computer coding: Follow the sequence of challenges as you learn how to program your computer to draw a range of images. https://studio.code.org/s/artist/lessons/1/levels/1• ART: Using the Zentangle art pattern and texture challenge (attached)

Practice your spelling and handwriting with Year 5 - 6 key words!
Remember to keep your handwriting neat

Look

Trace

Copy

exaggerate

exaggerate

excellent

excellent

existence

existence

explanation

explanation

familiar

familiar

foreign

foreign

forty

forty

frequently

frequently

government

government

guarantee

guarantee

harass

harass

hindrance

hindrance

identity

identity

Write a paragraph using as many of these words as possible.

Commas

, comma

Commas can be used in different ways:

- separating items on a list e.g. I travelled by car, fast train, bus and tram.
- between clauses e.g. Although I went by bus, I could have cycled.
- to separate additional information in a sentence e.g. I went by taxi, which was expensive, to get there on time.



Rewrite these sentences neatly, adding commas where necessary:

Grandad sat by the fire wearing his slippers with the cat on his lap.

Even though I am now ten years old I still don't like mushrooms.

The knight galloped through the forest over streams around the mountains and across the desert.

If you go into that haunted house you may never come out again!

The comical man who was wearing a purple hat danced down the road.

The princess packed her sparkly nail varnish pink onesie fluffy slippers and tiara for the sleepover.

Reading comprehension activity: Read and enjoy the text about the sinking of the Titanic and answer the comprehension questions.

Titanic

Titanic was a passenger liner and the largest ship of its time. It carried over 2000 passengers and crew. Its first voyage was from Southampton to New York but the ship never reached its destination.

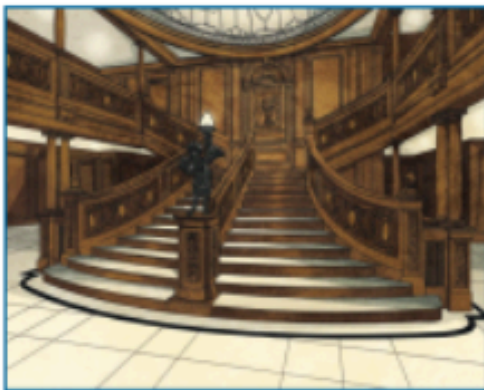
Building Work

Titanic was built in Belfast, Ireland. It took three years to build and cost millions of dollars.



The ship was constructed so that it had 16 watertight compartments. To keep the ship and passengers safe, these compartments included heavy metal doors which closed in around 30 seconds if any water seeped in. The doors closed slowly to give escaping crew members time to pass through.

Titanic had four funnels. Only three of these funnels worked; the other was for kitchen ventilation and to make the ship seem more powerful.



Facilities

The boat deck was the highest deck on Titanic. It was called the boat deck as this is where lifeboats were kept. It was a large open space where first and second class passengers could stroll, rest on benches and play games.

The grand staircase was covered by a beautiful glass dome. The centrepiece of the staircase contained a clock.

There was an A La Carte Restaurant for first class passengers, a Parisian-style restaurant and also first, second and third class dining saloons. In addition, there was a pool, two barber shops, two libraries, a gym, Turkish baths, a squash court and lifts. However, the use of these facilities depended on your ticket class.

First Class

Titanic's first class passengers were very rich. They travelled with several suitcases and trunks; some even brought their butlers, maids, dogs or car. The most expensive suites included two bedrooms, two dressing rooms, a sitting room, a bathroom and a private deck, or there were 350 cheaper first class cabins. All the rooms were beautifully decorated.

First class, one way tickets started at roughly £25 (thousands of pounds in today's money) with a suite costing near to £900.

Second Class

There was a grand dining room for second class passengers. The room was beautifully decorated. Second class rooms slept between two to four people, with a shared bathroom. Second class on Titanic was equal to first class standard on any other ship at the time.

Third Class

Third class travel was much less comfortable and known as 'steerage'. These passengers were not allowed to go to the first and second class areas of the ship and use facilities such as the swimming pool or squash court.

Cabins slept between two and ten people and there were only two bathtubs for all of the 712 third class passengers on board.

Third class tickets costed between £3 and £8. An £8 ticket would be worth around £550 today. This class offered transportation rather than luxury.



Why Didn't The Titanic Reach Its Destination?

The Titanic sank in the North Atlantic Ocean on 15th April, 1912 after hitting an iceberg.

Who Was to Blame?

Here a few theories about who was to blame:

Captain Smith was the ship's captain. Many people blamed him for continuing at speed into an unknown area of ice.

There were not enough lifeboats on board to hold all of the passengers and crew. There were only enough lifeboat spaces for 1178 people when the ship's total capacity was 3547. Tragically, when the lifeboats were launched, they were not even full.



Captain Lord was the captain of another ship called the Californian. His crew saw rockets being fired into the sky from the Titanic. Captain Lord was informed, but he didn't realise they were warning signals, therefore the ship didn't assist immediately. Also, the Californian's radio operator had finished work for the night meaning the ship didn't pick up the Titanic's distress signals in time to help.

The inquiries into the tragedy concluded that ships must always slow down when entering icy areas, all ships must carry enough lifeboats for everyone onboard and wireless rooms were to be manned around the clock.

Questions

1. Where was Titanic sailing to?

2. How many years did it take to build?

3. What was the purpose of fitting heavy metal doors, which closed slowly, in the watertight compartment areas of the ship?

4. Where were the lifeboats kept?

5. Why do you think third class passengers were not allowed to go up to the first or second class areas of the ship?

6. Can you explain why a second class passenger would have been impressed with their facilities?

7. What was the problem with the lifeboats? Give a detailed response.

8. Which ticket class would you have preferred and why?

9. What or who do you think was to blame for the disaster? Explain your reasoning.

Add and subtract integers

1 Complete the calculations.

		3	0	5	9
		+	1	5	4
				2	3

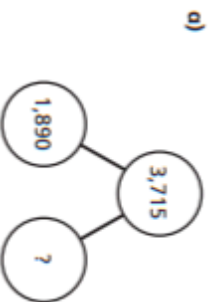
c) $5,236 + 424,850$

b)

		4	2	4	8
		-		5	2
				3	6

d) $30,594 - 15,423$

2 Calculate the missing numbers. Show your method.



b)

		2,354		750	
					1,500

c) $23,500 + \square + 120,578 = 1,201,079$

d) $\square - 233,233 = 322,322$

3 Match the calculations to the best estimates.

$8,000,500 - 6,100,000$

200,000

$1,250,000 + 900,000$

one million

double 600,000

$2\frac{1}{4}$ million

$123,999 + 84,178$

2 million

Talk about your answers with a partner.

4 Complete the calculations.

a)

		8	1		8
		+		0	6
			9	9	5
					8

c)

		8		4	8
		-	3	6	
			5	5	5
				5	5
					4

b)

		2			5
		-	2		0
			9	0	
					5

d)

		2	1		8
		+		0	6
			4	1	0
					2



- 5 Four players have scored points in a video game.

Player	Score
Annie	350,250
Jack	175,900
Mo	99,750
Dora	?

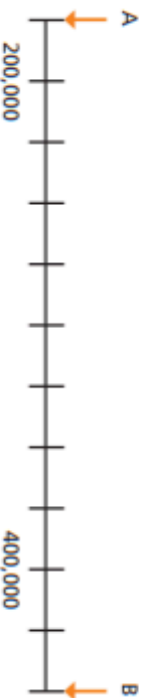
Dora's score is 88,300 less than Jack's.

- a) What is Dora's score?

- b) What is the difference between the highest score and the lowest score?

- c) What is the total of all the players' scores?

- 6 What is the difference between A and B?



The difference between A and B is

7

1 3 5 7 9 0

Use each digit card once to complete the calculation.

$$\square\square\square - \square\square\square = \square\square\square$$

Try different combinations of digits to get an answer that is as close to 500 as possible.

8

I am thinking of a number. I add 200,000, then subtract half a million, then add a quarter of a million. Then I round to the nearest 10, which is two million and fifty.



What number could Alex have been thinking of to start with?

Alex could have been thinking of

Blizzards



Blizzards are strong storms with cold temperatures, high winds, and blowing snow. These severe snowstorms are especially dangerous for people who are on the road. This is mainly due to the whiteout conditions that make it very difficult for people to see. The visibility in some blizzards is as little as 10 feet! Sometimes, people get trapped in their cars and might even freeze to death when a blizzard rages for a long time. When the storm is over, cars are often covered by a thick layer of snow which makes it difficult to find them.

In order to qualify as a blizzard, the wind speeds must be at least 35 miles per hour, the temperatures must be below 20°F and the storm must last for at least 3 hours.

Blizzards that occur in the Northeast region of the United States are known as Nor'easters. They get their name from the direction of the oncoming winds. The area borders the Atlantic Ocean, which sometimes dumps massive amount of snow over the region. The Midwestern region of the United States and central Canada are often called "blizzard country". The area is often struck by severe winter storms and the people have to deal with the dangers and inconveniences of them.



How do they form?

Blizzards need three conditions to form.

First, cold air is needed to create snowfall. The cold air must be present near the ground and also at the height of the clouds. If there is no cold air near the ground, the falling snow would melt.



Second, there must be enough warm and moist air to form clouds and cause precipitation. Moist air is also called water vapor. When winds blow over an ocean, sea, or lake, they create water vapor. When the air is warm enough, it rises and forms clouds.

Third, warm air must rise above cold air in order to develop a blizzard. This usually occurs when cold winds from the North or South Pole blow towards the equator and warm winds from the equator blow towards the poles of the Earth. When the warm and cold air meet, massive clouds begin to take shape resulting in the creation of a difference in air pressure. The different air pressures can result in strong winds. These clouds carry so much water vapor that would eventually be released as snow.



Exercise 3: Choose the best answers for the questions below.

1) What are conditions that blizzards need to form?

- a. Cold air
- b. Moisture
- c. Warm air
- d. All of the above

2) What is water vapor?

- a. Rainfall
- b. Snowflakes
- c. Moisture
- d. None of the above

3) Why is warm and moist air needed to form blizzards?

- a. Because they cause precipitation
- b. Because they carry lots of snow
- c. Because they make snow melt
- d. None of the above

4) Why do many blizzards form above oceans?

- a. Because oceans are very cold
- b. Because the air above oceans is very moist
- c. Because oceans are near the poles
- d. None of the above

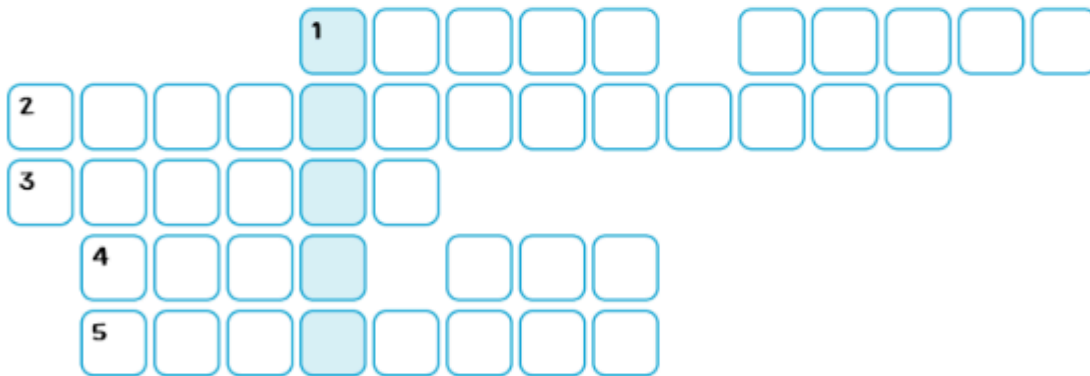
5) Blizzards form when cold air rises above warm air.

- a. True
- b. False

6) Blizzards form where cold and warm winds meet.

- a. True
- b. False

Exercise 4: Complete the puzzle and find the hidden word.



1) Another word for moisture.

2) Warm and moist air causes

3) A good source for water vapor.

4) If there is no ... near the ground, snow melts.

5) Differences in ... creates the strong winds of a blizzard.

How to survive?

You should never travel during a blizzard, either by car or on foot.

When you are caught in a blizzard, there are certain things you can do to survive the strongest ones.



It is very important to have a winter survival kit in your car if you live in a cold region or are

planning to go to a cold place. This kit should consist of a sleeping bag, warm clothes, food, water, matches, candles, a metal container to melt snow, and some kind of signal light.

Exercise 8: Fill in the gaps.

1) You can prepare for a blizzard by having a _____ in your car.

2) A blizzard emergency kit should consist of _____

_____.

Other tips:

- ❄ Make sure that the exhaust pipe of the car is free of snow. If it is not, the car might experience a build up of carbon monoxide (this is very dangerous!).
- ❄ If you are caught with your car in a blizzard, it is better to stay inside the car (unless you are near a building).
- ❄ Turn off the car engine to save gas. Only turn it on to heat up the car.
- ❄ It is important to drink enough water. If you don't have water, you can melt snow. You feel warmer when you are hydrated. Don't eat the snow, it will make you colder.
- ❄ Always keep your seatbelt on and put on the hazard lights so that people can see you.

3) The exhaust of a car should be kept free of snow because it may lead to the buildup of _____ in the car.

4) You should never eat _____ during a blizzard, because it will lower your body _____.

Zentangle eye drawing

Key question for learning?

How can I create my own zentangle eye or other feature?

Tasks:

Zentangling is a form of creating repeated patterns, sometimes these patterns can appear like illusions.

- 1. Draw, or use a printed copy of the eye as a starting point, to then create as a starting point, to then create patterns, shapes and lines around this area to fill the whole page**
- 2. Add colour to this design**
- 3. Does it remind you of anything in particular?** Write a story to link with your artwork.



