

Class Five: Online Learning Overview

Week Summer 3: 27th April 2020



| | | | |
|---|--|---|---|
| <p><u>English</u></p> <p>The Titanic Detective Agency Chapter 7</p> | <p><u>Maths</u></p> <p>Multiplication: Written Methods</p> | <p><u>Topic</u></p> <p>Titanic: Exploring the Ship</p> | <p><u>Spelling Shed Assignment</u></p> <p>Challenge Words</p> <p>https://play.edshed.com/</p> |
| <p><u>English</u></p> <p>The Titanic Detective Agency Chapter 8</p> | <p><u>Maths</u></p> <p>Multiplication: Missing Numbers</p> | <p><u>Topic</u></p> <p>Titanic: Iceberg Statistics</p> | <p><u>Maths Shed Assignment</u></p> <p>Times Tables (2 x – 12 x)</p> <p>https://play.edshed.com/</p> |
| <p><u>English</u></p> <p>The Titanic Detective Agency Chapter 9</p> | <p><u>Maths</u></p> <p>Kahoot Quiz – Multiplication</p> | <p><u>Science</u></p> <p>Describing Different Materials</p> | <p><u>Challenge</u></p> <p>Titanic: Creating a class Kahoot Quiz</p> |
| <p><u>English</u></p> <p>Extending the Story...</p> | <p><u>Maths</u></p> <p>Multiplication Games</p> | <p><u>French</u></p> <p>Mrs Price's Challenge</p> | <p><u>Challenge</u></p> <p>Exploring the Solar System and Stargazing</p> |



The Titanic Detective Agency: Chapter 7

I would like you to listen to Chapter 7, which can be found on our [Video Resource Centre](#) playlist. Once you have listened to the chapter, I would like you to explain in your own words who you think Mr Hoffman is, and why he is aboard the ship with the twin boys. You may want to listen to the earlier chapters again to gather clues – Mr Hoffman and the twins are described in Chapter 4.

Try to come up with his 'back story' rather than a few quick lines. Think about what may have happened to lead to the character boarding the ship and heading towards America, and also think about what you think may happen in the future, to the boys, to Mrs Hoffman, and how Bertha and Madge may be involved in any of the future events.

The Titanic Detective Agency: Chapter 8

To start the next piece of English work, I would like you to listen to the next chapter of the story, which you can find in our [Video Resource Centre](#) playlist.

I would like you to think about the differences in the way that classes were treated aboard the RMS Titanic. Johan's chapters show us a very different setting and treatment of passengers to Bertha's, and I would like you to write a few paragraphs to explain the differences between the classes as clearly as you can. As well as explaining facts and 'rules' aboard the ship, you also need to think about how the characters are made to feel in their classes. How does Johan feel about being a 3rd class passenger, and how does this affect the way that he behaves during the voyage?

The Titanic Detective Agency: Chapter 9

Before you begin the next activity about the book, I would like you to listen to Chapter Nine. Again, you can access the chapter in our playlist in the [Video Resource Centre](#) page on our website.

Once you have listened to the chapter, I would like you to look at the activity map [here](#). You need to choose three activities to complete from the map, and complete them in your workbook. It would be good for you to choose activities which are not all the same style or skill, so that you are stretching your brains a little! You may have to listen back to chapters 7 and 8, as the task grid here is linked to all three recent chapters that we have listened to in our work.

Extending the Story

The final English task this week is a longer activity, and you may choose to complete it over two days. You are going to continue the next chapter of the story, from the last lines of Bertha's perspective in chapter nine. You may wish to re-listen to chapter 9 before you plan what you are going to include in your writing. Remember that you are not writing the end of the book, just the next step in Bertha and Johan's adventures.

Try to make your writing descriptive, and interesting, and make sure you are using exciting vocabulary as well as speech, and punctuation! You can choose whether your version will be told from Johan's or Bertha's point of view – try to keep their 'style' going with whichever you choose!

Once you have written your own version of Chapter 10, you are welcome to email them across for me to look at: class5@bradworthy.devon.sch.uk



Multiplication – Using Written Methods

This week we are going to revise our work on written methods for multiplication. We covered this in class after Christmas, so it may feel a little fresher in your mind than some of the addition and subtraction work!

There is an explanation video [here](#) which will remind you of the methods we use when we carry out multiplication of numbers by a one-digit number (we call this short written multiplication). I would like you to watch this video, and maybe work out the calculations on a piece of paper at the same time as the video!

Once you have watched the video I would like you to have a go at [these practice questions](#), making sure you lay out your method carefully, and that you carry extra tens over in to the next column before adding them in when the multiplication of the next column is complete. Once you have finished the practice tasks there are some checking answer challenges too!

Multiplication – Solving Missing Number Problems

Today you have some missing number challenges which involve filling the gaps in calculations which have been completed. There is a guide to solving these calculations [here](#) which can help!

Remember to start with the units, as you would if you were simply solving the calculations. Then work out possible digits which would fit before you try the next column across and see if the digit you chose works.

There are lots of questions for you [here](#) to have a go at. Some are easier than others, but you will definitely need your times tables to help you work out which digits could fill different gaps!

Problem Solving & Kahoot Quiz: The Great Multiplication Quiz

Firstly, you need to use the multiplication methods we have been using this week to help you solve the [problem tasks here](#). These do not have a calculation written out, so you will have to decide which calculation you are going to complete to find the solution to the problem.

Make sure you write your calculation and method down clearly, so that you can check for any mistakes as you work through.

Next, I would like you to play this quiz on Kahoot. You can enter the quiz following the [link here](#), or by going to the website and entering this PIN: 05840612

You will have time to work out each calculation before you enter your answer, so you can take your time and write your methods down carefully.

Multiplication: Designing a Game or a Challenge

Your final maths challenge is based on you creating a game which requires the player to solve at least 15 multiplication calculations, working with numbers of up to 5 digits, multiplied by one digit only.

We have played loop games in class before, which work in the same way as dominoes, and this could be one type of game you could use. Or you could decide to create a code puzzle like the ones we have done before, or a pairs game, or anything else that comes into your mind.

The trick is to make sure the answers in yours games are correct, either by making an answer sheet or by designing a game or quiz which has a self checking part!

Enjoy – be as creative as you like!



Titanic: Exploring the Ship

Following the work we have completed based on the lifeboats and passengers aboard the RMS Titanic, I would like you to spend some time taking a tour of the ship. This is difficult, given that she is at the bottom of the ocean, but a group of game developers have been working for several years to develop a virtual version of the tour, using the original plans, photos and advertisements to help. There are two tours now available online, a [quick tour](#), which simply walks around the vessel, and a [long tour](#) which stops at information points for you to read where you are. It would be wonderful if you could watch the longer tour over the week, as the fact boxes are really interesting. You can use the cross section of the ship which was in the packs I posted to you, to tick off the areas of the ship that you see. Make notes of any interesting facts, and enjoy being aboard the ship!

Titanic: Iceberg Statistics

The next part of your topic work is based around the icebergs that were in the region where the Titanic sank. In your topic pack which I posted you, there are instructions to [make an iceberg](#) of your own. If you have balloons and enough space in your freezer it is great fun to have a go and make one! When you have done this, add it to some water and see how much of the iceberg is below the water and above the water line. There are some questions on the sheet for you to answer about icebergs as well. If you manage to make one of your own, send a picture to the blog or to class5@bradworthy.devon.sch.uk and we can compare!

When you have studied icebergs, I would like you to use the [information and bar chart sheet](#) to create a chart showing how many icebergs were spotted in the years around Titanic's sinking. Fill in all sections of the graph (including the titles!), and then use this to answer the questions on the sheet.

Science: Describing Different Materials

We are going to start our new science topic while school is closed, so that when we get back we can jump straight into experiments and investigations! We are going to start looking at the way materials are made, and the way that they can change. To get started with this, I would like you to find the [Vocabulary Sheet](#) in the pack I posted to you. This involves lots of words we will use to discuss materials we work with. I would like you to find out what each word means, and link it to the matching definition in the middle column. Then, I would like you to match the word and definition to an object which could be used as an example.

Next, I would like you to have a go at testing some materials in your house against different properties. The instructions are included on the sheet [here](#).

Finally, I would like you to look at this [activity](#) on BBC bitesize to support what you have learned.

French: Mrs Price's Challenge

Mrs Price has sent me this – there are some links to some games and quizzes which use the French you have learned so far this year!

Greetings

<https://quizlet.com/nz/264010687/french-greetings-french-greetings-flash-cards/>

You know how to use C'est + a monument.....It is + a monument to describe a monument you can see. Here you can learn how to express opinions with C'est + an adjective opinion. There is a choice, 12 or 17 terms

<https://quizlet.com/439044533/french-cest-expressions-flash-cards/>

<https://quizlet.com/438484003/french-cest-expressions-flash-cards/>

Paris monuments....some you know, some new ones

<https://quizlet.com/237268349/french-2-les-monuments-de-paris-flash-cards/>

Numbers to 20 for year 5 / 6

<https://quizlet.com/313091802/french-numbers-up-to-20-flash-cards/>

Numbers 20 - 50 to challenge yourselves to go further

<https://quizlet.com/157743396/french-numbers-20-to-50-flash-cards/>



Spelling Shed Assignment

Your Spelling Shed assignment this week will be available to you when you log in from Monday 27th April until Sunday 3rd May. Your task this week is based on some of the challenging words from the Year Five and Six word list – they are tricky so start on the easier levels and work up to expert! Some of these words are also part of your danger words list, so you will recognise them!

You can play the game at all levels from easy to expert, and you will gain 'points' based on the scores you have achieved in the last seven days. Once you have played ten games with the words the rest of the games will unlock again, so you can play those as well. I will be giving everyone who attempts these challenges bonus honeypots to use to develop your avatars.

Maths Shed Assignment

As with the spelling games, your Maths Shed assignment will also be available to you when you log in from Monday 27th April until Sunday 3rd May. Your task this week is based on multiplication facts from each of the times tables (2x – 12x). You will have noticed how helpful knowing your times tables has been this week helping you to solve multiplication calculations, and this challenge will help keep these skills fresh!

Again, you can play the game at any level, from easy to expert and you will earn points. Once you've played the game 10 times the rest of the Maths Shed games will open up as well. I will be giving anyone who has a go at the challenge some bonus honeypots which you can use to buy more accessories for your avatars, so make sure that you log on and have a go!

Titanic: Creating a Class Kahoot Quiz

I would like to create the Great Class Five Titanic Quiz on Kahoot, for you all to try and have a go at. To do this successfully I would like each of you to send me 5 questions that you would like added to the quiz. Kahoot offers a range of types of questions, so you can choose which types you would like to use, and then send me the question, any possible answers and the correct answer!

You can choose from:

1. Multiple Choice (4 answers to choose from)
2. True or False (2 answers to choose from)
3. Open Ended (the person types the correct answer)
4. Ordering 4 Answers

Once you have chosen and designed your questions, email them to me at class5@bradworthy.devon.sch.uk, and I will put the quiz together ready for next week!

Challenge: Exploring the Interactive Solar System & The Night Sky

There are two very awesome websites below, which allow you to explore the Solar System and the stars that you can see!

The Interactive Solar System can be accessed at <https://nineplanets.org/tour/>
This allows you to look at each of the planets, and to explore other features of the Solar System from a range of different perspectives.

This online 'Planetarium' <https://stellarium-web.org/> allows you to see the night sky in your area (you need to allow it to follow your location). You can find out about the stars in the sky above you – and you can follow planets and constellations too!

English: Activities linked to Chapters 7, 8 & 9

| | | |
|---|--|---|
| <p style="text-align: center;">Connect 4</p> <p>Ch7: <i>'I said dolls are also for boys...'</i></p> <p>Then and now, toys are often gendered; split into 'for girls' and 'for boys'. Make a list of examples. Do you think this is right? If so, why? If not, why not? Explain your answer.</p>  | <p style="text-align: center;">Explore Some More</p> <p>Ch7: <i>'Bertha stared after them, her mind whirling like a Catherine Wheel.'</i></p> <p>What does this mean? Why was Bertha's mind whirling?</p> <p>Can you think of other similes the author could have used?</p> | <p style="text-align: center;">Reflect and Respond</p> <p>Ch8:</p> <p>Read the first half of page 72 and find four examples of water/ice related imagery used by the author.</p> <p>Why do you think the author has used this imagery? Is it effective?</p> |
| <p style="text-align: center;">Infer What's Not There</p> <p>Ch9: <i>'Never before in Bertha's life had she seen her mother give The Look to an adult.'</i></p> <p>Why do you think Bertha's mother is so annoyed with Ellen Toomey?</p> <p>Give three reasons.</p> |  <p style="text-align: center;"><i>The Titanic Detective Agency</i> Chapters 7-9</p> | <p style="text-align: center;">Connect 4</p> <p>Ch8: <i>'...moving swiftly before the last of his courage seeped away.'</i></p> <p>Has there been a time when you were afraid to do something, but succeeded in doing it, despite your fear? What strategies did you use to help you succeed? Share them with the group.</p>  |
| <p style="text-align: center;">Explore Some More</p> <p>Ch7 & Ch8:</p> <p>Discuss and add to your own Character Map and Titanic Fact File and Chapter Summaries.</p> <p>Make a prediction about what you think will happen in Ch9.</p> | <p style="text-align: center;">Read and Understand</p> <p>Ch9: Read the exchange between Bertha and the deckhand. (p81 & p82) How does he feel about her request to speak to the Captain? Give four examples from the text which back up your opinion. Did you enjoy reading this scene? Why/Why not?</p> | <p style="text-align: center;">Create Something Great</p> <p>Do some research, and write a set of illustrated rules for the game of <i>Kick the Can</i>.</p> <p>Or </p> <p>Find out about some other popular children's playground games from the past. Make a list. Play one or two in the gym hall or the playground.</p> |

Can you choose three activities from the grid and complete them in your workbook?

Try to choose three different activities – think about the skills that you are using in the activities you select!

Maths Task 1: Practice Multiplication

Can you have a go at these calculations? Make sure you show your method fully, and make your carrying clear!

1. 3×243

2. 4×316

3. 5×233

4. 8×221

5. 6×324

6. 7×624

7. 4×354

8. 3×836

9. 7×346

10. 3×876

11. 8×527

12. 6×768

Once you have completed these, can you look at the completed calculations below? You need to check the methods completed, and see whether they are correct. If they are incorrect, mark the mistake, and then repeat the question to show the correct answer!

The first one has been completed for you as an example.

| | | | | | | | | | | | | | |
|----|---|---|---|---|---|--|---|---|---|---|--|--|--|
| 1. | | | | | | | | | | | | | |
| | | | 6 | 4 | | | | 6 | 4 | | | | |
| | x | | | 8 | | | x | | | 8 | | | |
| | | 4 | 8 | 2 | x | | | 5 | 1 | 2 | | | |

| | | | | | |
|----|---|---|---|---|--|
| 2. | | | | | |
| | | | 7 | 3 | |
| | x | | | 5 | |
| | | 3 | 6 | 5 | |
| | | | | | |
| 3. | | | | | |
| | | | 8 | 6 | |
| | x | | | 3 | |
| | | 2 | 4 | 8 | |

| | | | | |
|----|---|---|---|---|
| 4. | | | | |
| | | 9 | 3 | |
| | x | | 8 | |
| | | 7 | 2 | 4 |
| | | | | |
| 5. | | | | |
| | | 8 | 7 | |
| | x | | 6 | |
| | | 5 | 2 | 2 |
| | | | | |
| 6. | | | | |
| | | 9 | 5 | |
| | x | | 5 | |
| | | 5 | 0 | 0 |

Multiplication Session 2: Missing Digits

Calculate the missing number in these calculations.

$$\begin{array}{r} 1. \quad 6_3 \\ \times \quad _ \\ \hline 1899 \end{array}$$

$$\begin{array}{r} 2. \quad _6_ \\ \times \quad 5 \\ \hline 2330 \end{array}$$

$$\begin{array}{r} 3. \quad _5_ \\ \times \quad 2 \\ \hline 906 \end{array}$$

$$\begin{array}{r} 4. \quad 8_4 \\ \times \quad _ \\ \hline 3536 \end{array}$$

$$\begin{array}{r} 5. \quad _3_ \\ \times \quad 4 \\ \hline 3752 \end{array}$$

$$\begin{array}{r} 6. \quad 7_0 \\ \times \quad _ \\ \hline 2250 \end{array}$$

$$\begin{array}{r} 7. \quad _9_ \\ \times \quad 3 \\ \hline 570 \end{array}$$

$$\begin{array}{r} 8. \quad _7_ \\ \times \quad 2 \\ \hline 1344 \end{array}$$

$$\begin{array}{r} 9. \quad 9_4 \\ \times \quad _ \\ \hline 3856 \end{array}$$

$$\begin{array}{r} 10. \quad _2_ \\ \times \quad 6 \\ \hline 1974 \end{array}$$

$$\begin{array}{r} 11. \quad 2_6 \\ \times \quad _ \\ \hline 1480 \end{array}$$

$$\begin{array}{r} 12. \quad 9_4 \\ \times \quad _ \\ \hline 3736 \end{array}$$

$$\begin{array}{r} 13. \quad _8_ \\ \times \quad 3 \\ \hline 2661 \end{array}$$

$$\begin{array}{r} 14. \quad 4_0 \\ \times \quad _ \\ \hline 2940 \end{array}$$

$$\begin{array}{r} 15. \quad _8_ \\ \times \quad 2 \\ \hline 1578 \end{array}$$

$$\begin{array}{r} 16. \quad _5_ \\ \times \quad 4 \\ \hline 2224 \end{array}$$

$$\begin{array}{r} 17. \quad 4_0 \\ \times \quad _ \\ \hline 1760 \end{array}$$

$$\begin{array}{r} 18. \quad 8_6 \\ \times \quad _ \\ \hline 4130 \end{array}$$

$$\begin{array}{r} 19. \quad _1_ \\ \times \quad 3 \\ \hline 1530 \end{array}$$

$$\begin{array}{r} 20. \quad _5_ \\ \times \quad 2 \\ \hline 1108 \end{array}$$

$$\begin{array}{r} 21. \quad _1_ \\ \times \quad 2 \\ \hline 1838 \end{array}$$

$$\begin{array}{r} 22. \quad _2_ \\ \times \quad 2 \\ \hline 1452 \end{array}$$

$$\begin{array}{r} 23. \quad _4_ \\ \times \quad 5 \\ \hline 1215 \end{array}$$

$$\begin{array}{r} 24. \quad 7_7 \\ \times \quad _ \\ \hline 3585 \end{array}$$

$$\begin{array}{r} 25. \quad 7_5 \\ \times \quad _ \\ \hline 1430 \end{array}$$

$$\begin{array}{r} 26. \quad _6_ \\ \times \quad 3 \\ \hline 2583 \end{array}$$

$$\begin{array}{r} 27. \quad _7_ \\ \times \quad 4 \\ \hline 1916 \end{array}$$

$$\begin{array}{r} 28. \quad 4_2 \\ \times \quad _ \\ \hline 1768 \end{array}$$

$$\begin{array}{r} 29. \quad _5_ \\ \times \quad 3 \\ \hline 462 \end{array}$$

$$\begin{array}{r} 30. \quad 4_5 \\ \times \quad _ \\ \hline 1395 \end{array}$$

$$\begin{array}{r} 31. \quad _6_ \\ \times \quad 3 \\ \hline 2886 \end{array}$$

$$\begin{array}{r} 32. \quad _4_ \\ \times \quad 2 \\ \hline 280 \end{array}$$

$$\begin{array}{r} 33. \quad 7_1 \\ \times \quad _ \\ \hline 3905 \end{array}$$

$$\begin{array}{r} 34. \quad _4_ \\ \times \quad 5 \\ \hline 745 \end{array}$$

$$\begin{array}{r} 35. \quad 7_6 \\ \times \quad _ \\ \hline 4596 \end{array}$$

$$\begin{array}{r} 36. \quad 6_3 \\ \times \quad _ \\ \hline 3215 \end{array}$$

$$\begin{array}{r} 37. \quad _0_ \\ \times \quad 5 \\ \hline 3000 \end{array}$$

$$\begin{array}{r} 38. \quad 6_6 \\ \times \quad _ \\ \hline 2544 \end{array}$$

$$\begin{array}{r} 39. \quad _0_ \\ \times \quad 2 \\ \hline 1206 \end{array}$$

$$\begin{array}{r} 40. \quad _3_ \\ \times \quad 2 \\ \hline 868 \end{array}$$

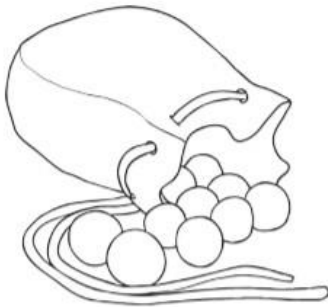
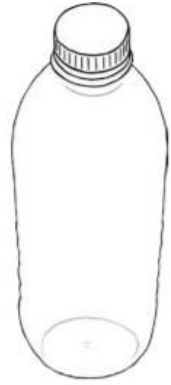
Can you find the missing digits in these calculations? Remember that carrying can change digits in the calculations! If you are stuck, have a look at this video for a guide to solving these challenges.

<https://www.youtube.com/watch?v=yIf9RnbIjCM>



Multiplication Session 3: Problem Solving

1. A teacher asks some children to arrange some chairs into 12 rows of eight chairs. How many chairs will be laid out? _____
2. A crate contains 32 packs of four water bottles. How many bottles are there on each crate? _____
3. A photo album contains 28 pages. Each page can hold six photos. How many photos can each album hold? _____
4. A grocer has 37 packs of bananas. Each pack contains seven bananas. How many bananas are in the packs? _____



5. Marbles are sold in bags of 25. A shop has 16 bags. How many marbles are there altogether? _____
6. A badminton tournament is arranged at a local sports hall. There are 5 courts. Each court is allocated 18 shuttlecocks. How many shuttlecocks are allocated to the 5 courts? _____
7. Envelopes are sold in packs of ten. A supplier has 107 packs of envelopes. How many envelopes has the supplier? _____
8. A library has 50 shelves. Each shelf has 38 books. How many books are there in the library? _____

Can you solve the problems here? You need to work out which calculation needs to be completed to find the answer to the problem, then solve it! Show your workings so that you can check for any mistakes!

Incredible Icebergs

An iceberg may take thousands of years to form from layers of snow but children can make their own iceberg overnight!

You will need:

Jug, water, balloon, funnel, plastic bag, freezer, clear bowl, spoon, salt, scissors and a tea towel.



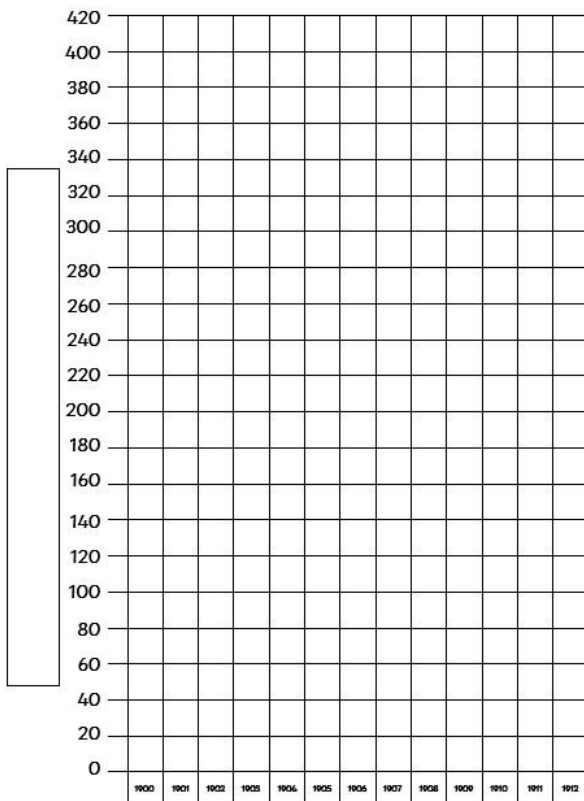
Instructions:

- 1) Fill the jug with cold tap water. Fit the funnel into the neck of the balloon, holding it in place, and pour the water into the balloon.
- 2) Tie the end of the balloon to seal the water inside. Put the balloon inside a plastic bag and freeze overnight.
- 3) Next day, fill the bowl full with water and add 5 to 10 tablespoons of salt to make seawater.
- 4) Take the balloon out of the freezer and remove the plastic bag. Cut the end off the balloon and peel it off the ice.
- 5) Using a tea towel to prevent your fingers sticking, place the iceberg in the bowl of salty water.

Questions:

Can you find out how icebergs form in nature? How does this link to the way you made your own iceberg?

How much of your iceberg was above the water line? Why do you think this is? Do you think this helps you understand the damage the iceberg caused to the ship?



| Year | April Total |
|------|-------------|
| 1900 | 5 |
| 1901 | 4 |
| 1902 | 1 |
| 1903 | 166 |
| 1904 | 63 |
| 1905 | 373 |
| 1906 | 49 |
| 1907 | 162 |
| 1908 | 39 |
| 1909 | 134 |
| 1910 | 34 |
| 1911 | 112 |
| 1912 | 395 |

This information is a count of the number of large icebergs spotted in the area where the Titanic sank, from 1900 – 1912.

You are going to use this information to help you answer the questions below.

1. Use the data table and the chart sheet to create a bar chart showing the different numbers of icebergs spotted each year. Make sure you add labels to the axis, and colour each bar clearly.
2. Was 1912 an unusual year for the number of icebergs spotted? Can you explain your answer?
3. Do you think the lookouts aboard the Titanic would have been expecting to encounter so much ice? Explain your answers.

Science: Properties of Materials

Can you match the terms, the definition and the Examples?

| | | |
|-------------|---|-------------------------|
| Translucent | These materials are very difficult to break | Sponge |
| Waterproof | These materials soak up water and let water pass through them | Wooden spoon |
| Strong | These materials allow some light to pass through them; can be described as semi-transparent | Chair |
| Brittle | These materials do not let water through and do not soak up water. | Window |
| Absorbent | These materials do not let any light through (you cannot see through them). | A hand |
| Opaque | These materials are easy to bend. | Green glass milk bottle |
| Conductor | These materials are not easy to bend. | Wellies |
| Flexible | These (iron) materials are attracted to magnets. | Scarf |
| Transparent | Some materials do not allow heat or electricity to travel through them. | Paperclip |
| Insulator | Some materials allow heat or electricity to pass through them easily. | Clothes |
| Magnetic | These materials do let light through (you can see through them). | Saucepan |

These are words we will be using to describe objects and materials in our science work. Can you find out what each one means, and then match the definition to the vocabulary, and a material which would be an example of this property?



Testing Properties of Materials

The instructions here are for you to test a set of different objects and score them against certain properties. The instructions show you how to test objects to score how hard they are, how flexible they are, and whether they are magnetic, transparent and permeable. You may need to re-design these 'tests' with things that you have at home – be creative!

Can you choose 5 different materials from around the house and test them against the properties here?

Follow these instructions to test the properties of different materials.

| | |
|--|---|
| <p>Magnetism test. Touch a magnet to each material. If it is attracted to the magnet, it is a magnetic material. If it is not attracted to the magnet, it is not magnetic. Cross or tick to show whether each material is magnetic.</p> | <p>Hardness test. Using the pointed end of a nail, carefully try to scratch the surface of each material. Number the materials from 1 to 5, with 1 being the softest material and easiest to scratch with the nail, and 5 being the hardest material and hardest to scratch with the nail. Wear goggles for this test.</p> |
| <p>Transparency test. Hold each material in front of your eyes. If you can completely see through it, it is transparent. If you can see through it a bit, it is translucent. If you can't see through it at all, it is opaque. Cross or tick to show whether each material is transparent.</p> | <p>Flexibility test. Flexibility means how much a material will bend without breaking. Try to gently bend each material over the edge of the table. Number the materials from 1 to 5, with 1 being the least flexible material and hardest to bend, and 5 being the most flexible material and easiest to bend.</p> |
| <p>Permeability test. If a material is permeable, it allows liquids to go through it. Impermeable materials do not allow liquids through, so they are waterproof. Place each material over a jar that is in an empty tray, using an elastic band to hold it in place if necessary. Pour 20ml of water onto the material. If the material is permeable, some or all of the water will go through it into the jar. If it is impermeable, the water will stay on the material or run off it into the tray. Cross or tick to show whether each material is permeable.</p> | |

Record your results below.

| Material | Properties | | | | |
|----------|--------------------|-------------------|-----------------------|----------------------|---------------------|
| | Magnetic Y or N | Hardness 1 - 5 | Transparent Y or N | Flexibility 1 - 5 | Permeable Y or N |
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