

10

1

5

Pablo's Armchair Treasure

2

11

Hunt 2015-16

6

8

Yes - there really is
buried treasure out
here!

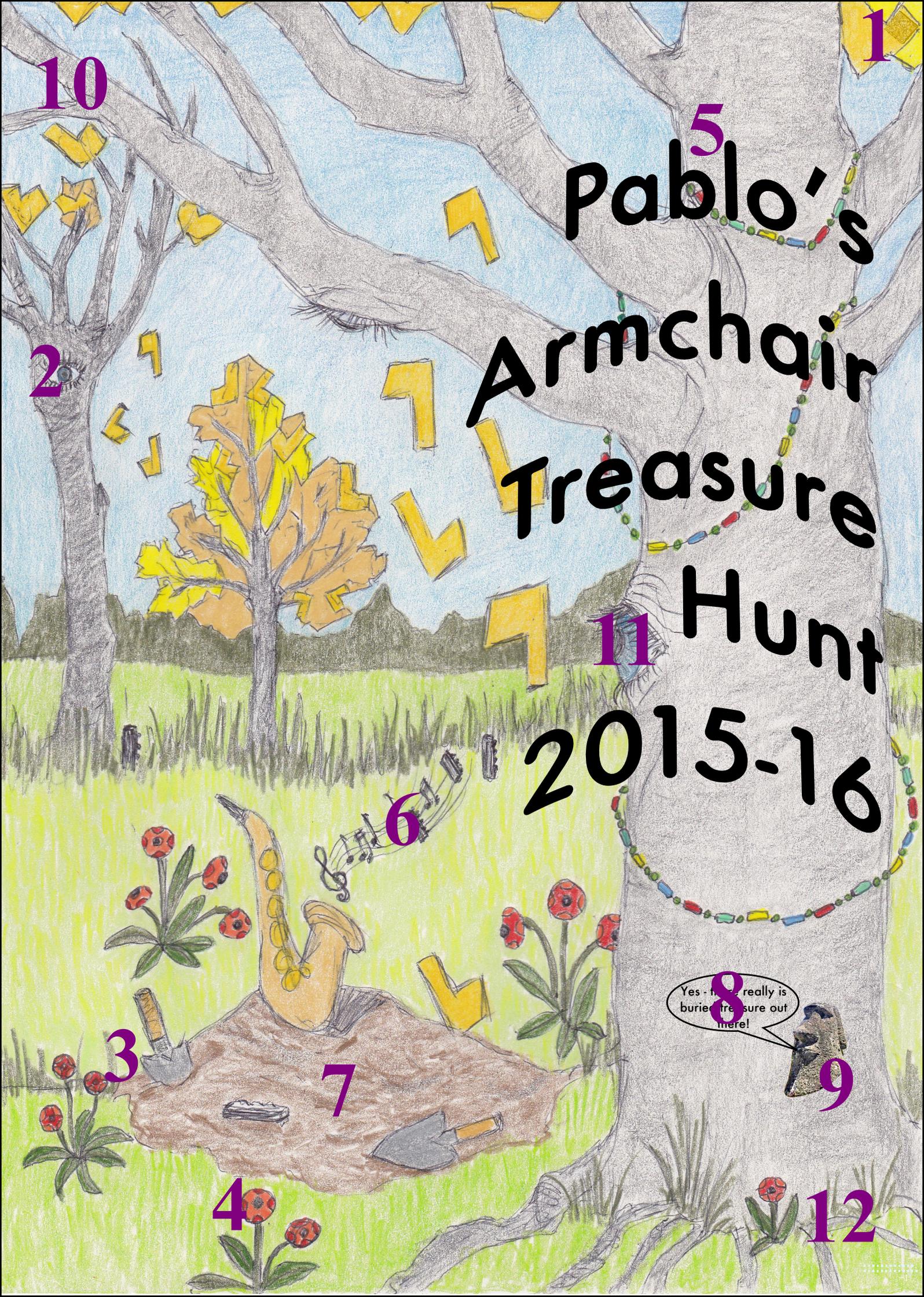
9

3

7

4

12



1-4. There 4 QR codes hidden in the picture at these locations, 800% zoom will show them up, each yields text as follows:

1 THEPOSTERTHELETTERANDTHETHIRTEENSHEETSINDICATEITISWORTHROLLINGTHELIFEBOATS

A hint that all three are important. Rickmansworth is hinted at by WORTH, (Rick) ROLLING and (man) THE LIFEBOATS.

2 ITISWORTHUSINGTHEFIRSTSIGNIFICANTLETTEROFTHEANSWERTOEACHQUESTIONEGSURNAME

Another hint to Rickmansworth and a guide as to how to extract a letter from the answers.

3 SAOQZCPULQRITMLQUQDIPDEDTGSSEPXDRIA AZKGLAIJSWQADDFKEIKCPQLIRUBZQECCSMVZR

Meaningless cipher text necessary to adjust the outcome of summing multiple text strings.

4 COUNTTHEDAISCOUNTALLTHEQUESTIONSTHEEVOLVINGJOURNEIOPHILOSANDTHEWEATHERMAN

A major hint that the number of questions on the Poster is significant. The weather man is Fitzroy, inventor of the forecast and Darwin's (nickname Philos) captain on the Beagle. A great hint to the Voyage of the Beagle where the seeds of the theory of Evolution were sown. The number of days of the voyage are identical to the number of questions. Note that Y is replaced by I to conform to the Modulo 25 code.

5. The font is **station font** and so is the question text and everything else and a hint that stations are significant.

6. There is a sound file here (Music02) and it plays the sound of a saxophone and is the sound you should hear from the treasure box when you zap the bird box.

7. The treasure box is buried and you will need some tools to excavate and some TV remotes to zap the eyes in the trees.

8. The first letter of the song titles of the music in the Easter Head speech bubble (Music03, Moonlight Sonata - Beethoven) and to right of the head in logos on later pages spell MERRCHRISTMAS. Missing Y is significant see Modulo 25 code. Note repetition of "... buried treasure" is both a hint to bring tools to treasure site and a pointer to the red herring of Bury Lake and Moneyhill in Rickmansworth.

9. Sadly no significance to the Easter Island head, I just liked the look of it.

10. The falling Logica Ls represent leaves in autumn (according to the artist) but more specifically a hint that the Logica L at the treasure location is classic style. The artist's notes for the picture are "*the flowers are inspired by remote control gadgets, as are the beaded garlands on the tree. The green beads being the turn on button and the lozenge shaped beads by the four buttons of red, green, yellow and blue. Remote controls (sort of) appear in a few places. Of course the 'music' is gibberish*".

11. The eye drawings are a hint to a bird box which has the same outline around the bird entry hole. In the wood are several bird boxes but only one with eye drawings.

12. 12 and 13 pinhole indicating that pages 12 and 13 contain the pinhole code. The +1 indicates that the pinhole is in the letter or punctuation after the message letter.

64. If X2 is not more than 157 and X5 is 261 or more, what is X?

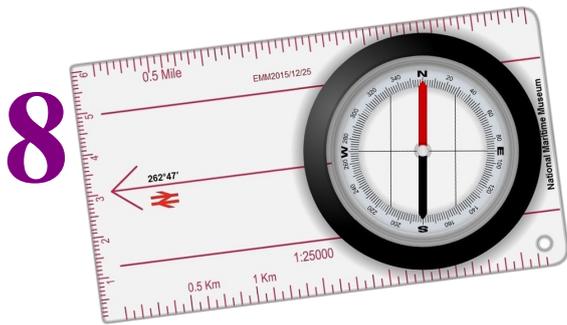
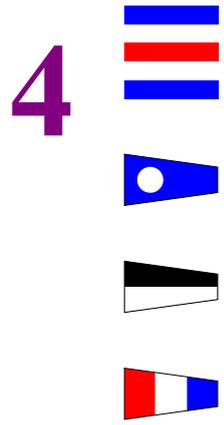
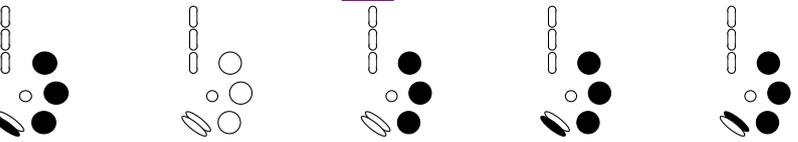
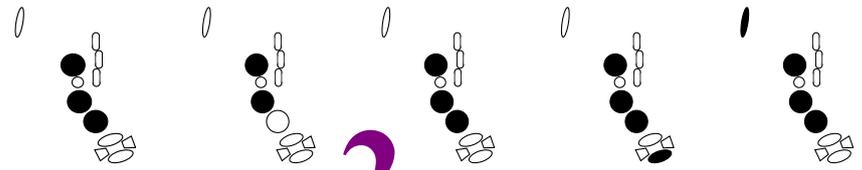
65. Which group's number 1 had no time for Edward Elgar and cod liver oil.

66. Which non-existent inspector is called for whenever there is a problem on public transport?

67. Which Shakespearean character shares their name with a lupine transgender creation?

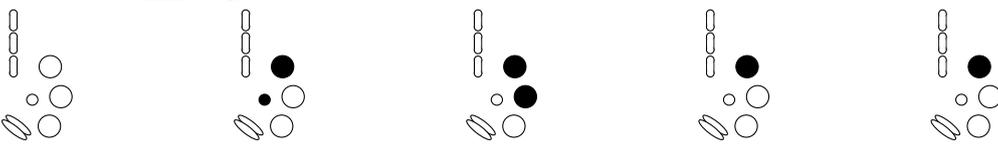
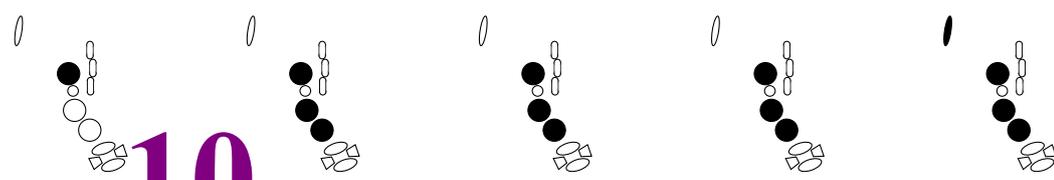
68. Which fruity reverie rebounded in Coventry Cathedral in the 1970s?

69. Parts of which creature were found during building works on a London station, after possibly sitting on a cornflake since 1822?



70. What word might seasonally complete this sequence and why? LAZILY, UNWEL, FULFIL, HAVANA, TORQUE, INFIRM, ADAGIO, FROLIC.

71. What was it hoped would be lightened by using seaweed?

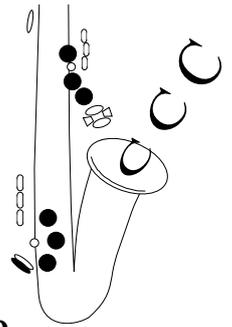


1. Questions

2 & 10. Saxophone code CLEAR NIGHT. Note that the references are all to Met Office Weather symbol names and a pointer to Forecasting² as invented by Fitzroy, the captain of the Beagle.

<http://www.metoffice.gov.uk/guide/weather/symbols>

Height set at 1.3" to ensure will print visibly on A4.



3. A navigation hint to locating the station, the compass³, see 8 below. The compass was in use in 206 BC. This is an Italian Mariners Compass, the earliest in the National Maritime Museum collection and it dates from the second half of the 16th century.

4. These are International maritime signal flags showing: Course in degrees magnetic⁴ 63. Note this is the same as the compass below and so adds no extra value apart from introducing the flags.

5. Not used.

6. Bracknell⁵ station

7. QR code is a link to Rick Astley video
<https://www.youtube.com/watch?v=dQw4w9WgXcQ?autoplay=1>

8. The compass shows National Maritime Museum, a bearing and EMM2015/12/25. The NMM is an indication of where the bearing should be taken from and the EMM2015/12/25 is a pointer to the site to be used to calculate magnetic declination on Christmas Day 2015. EMM2015 is the Enhanced Magnetic Model run by the National Centers for Environmental Information at www.ngdc.noaa.gov/geomag/EMM/ and gives a declination of 49' west. So that the actual bearing⁸ is 261° 58'. If this bearing is followed it passed through Bracknell Station and is confirmation that the correct station has been located. (Annoyingly the EMM model now seems to give 50', we are allowing both values.).

9. Questions

10. See 2 above.

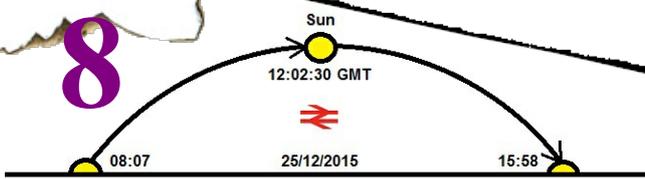
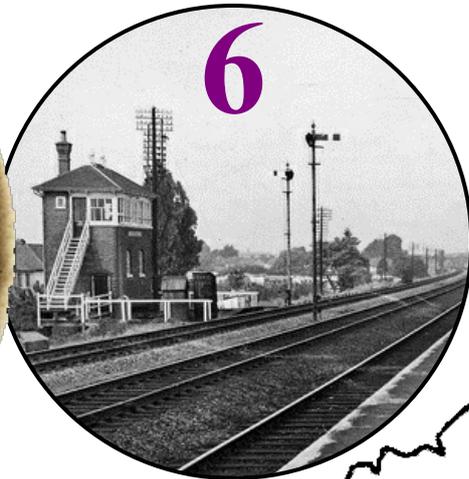
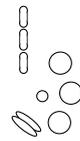
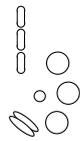
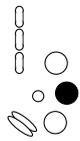
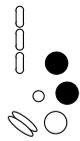
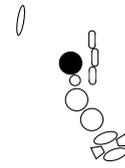
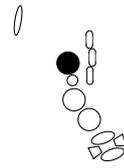
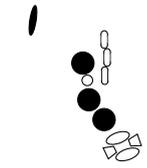
11. Music⁹ Easy Lover - Phil Collins. Embedded in the logo is Morse code spelling¹⁰ www.ATHCorp.co.uk. The "... know why" is a hint that Y is to be removed from the cipher alphabet.¹¹

607. Which tube stop has its own pub?

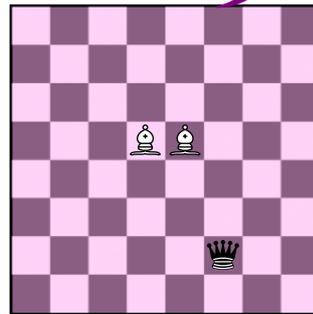
608. Who opened the first main branch post office in a place of worship?

609. How many lakes in the Lake District?

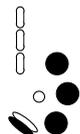
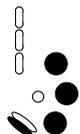
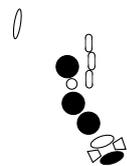
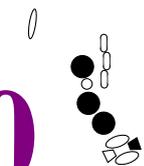
610. An Englishman sings his National Anthem as part of the celebrations surrounding the coronation of a French king. Where did he fail to get to?



1. A dog stops outside a hotel and makes one man rich and another poor. Explain.



2. Replace the kings on the board such that white has a one move mate?



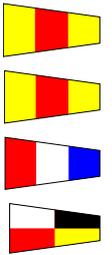
1. Questions

2&10. Saxophone code SUN¹NY DAY

3&11. Note the Y's are burnt out of the saxophone code as a hint that Y is missing from the cipher alphabet. ²

4. A Marine Sandglass³, known since the 14th century although reasonably presumed to be of very ancient origin. The sandglass was used to determine Longitude and is a hint towards how 8 should be used.

5. These are International maritime signal flags that should be showing Longitude 00 degrees 39 minutes. However, only the longitude flag is showing which is another hint that 8 will reveal longitude. The missing flags are on the right. ⁴



6. Burnham station ⁵

7. Outline of Fitzroy area as shown on weather maps. A hint towards the captain of the Beagle. ⁶ http://www.bbc.co.uk/weather/coast_and_sea/shipping_forecast

8. The date, time that the sun is highest in the sky and sunrise and sunset times define a lat/lon square on the globe. The latitude range is broad and no help but the longitude range is small and will confirm the station as Burnham. An approach to finding a station this way is be use <http://www.esrl.noaa.gov/gmd/grad/solcalc/>, enter a UK lat/lon, GMT, date and noon. Then drag and release the "mapicon" until the required sunrise, sunset and solar noon has been found. Then continue dragging and releasing the mapicon whilst remaining within the required sunrise, sunset and solar noon until the station is found. ⁷

9. 1. This is a test of imagination and the answer we are looking for is "they were playing a game of monopoly". A dog is one of the standard playing pieces and hotels are the big money part of the game. So if you land on a property with a hotel on it you become poor by paying the owner a lot of money and they become rich. 2. White king f⁸ black king h1. Black's last move was Qf2+ and white mates by Kf3xQf2, with discovered mate from the d5 bishop. ⁹ The River Chess is one of the three rivers of Rickmansworth. ¹⁰

10. See 2 above

11. See 3 above

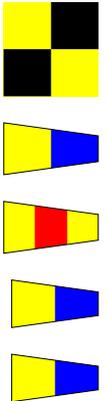
12. Music¹¹ rule Britannia. Embedded in the logo is Morse code spelling www.goo.gl/7i0eb9 a link to the Rick As¹²ley video. Note must be entered in lowercase.

1. Questions

2. The gentleman is using a K1mal, a celestial navigation device that determines latitude. It originated with Arab navigators of the late 9th century. This is a hint that latitude will be determined by 7 below.

3. Clock showing 1831. This is a hint to the Voyage of the Beagle that started in 1831 and is confirmed by the last four digits of Acton Hospital phone number on the Consultant Letter. The phone symbol is a hint to call the number if not already done so.

4. All these International maritime signal flags are obscured on this page, they would show Latitude 50 degrees 55 minutes to confirm 9 below but that gives too much away.



5. Totton station

6. A QR code. "*Pink is the new red. Although they are not so much fish as amuse-bouches.*". In the pink puzzles on various pages are not quite red herrings, but they are there to divert your attention from the main task of treasure hunting, hopefully in an interesting way. According to Wikipedia "Amuse-bouches are different from appetizers in that they are not ordered from a menu by patrons, but are served gratis and according to the chef's selection alone."

7. A word search grid in the shape of a train, a weak reference to stations. The words to be found are all the region names from the Shipping forecast apart from Fitzroy, ie a Fitzroy hint. Note that Southeast Iceland is a single region but the word search generating program had a length limitation so it was split into two words. We feel the teams will have no problem dealing with this small enhancement. The list of regions in the train are on the page opposite 14.

8. Questions

9. The elevation of Polaris in the night sky as seen from the station. The elevation is the latitude of the observer and so confirms the station as Totton.

10. Saxophone code MIST

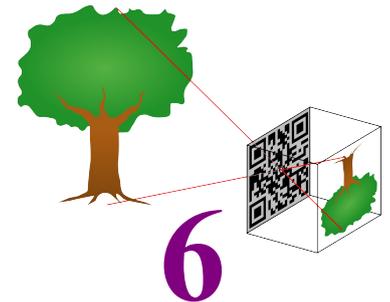
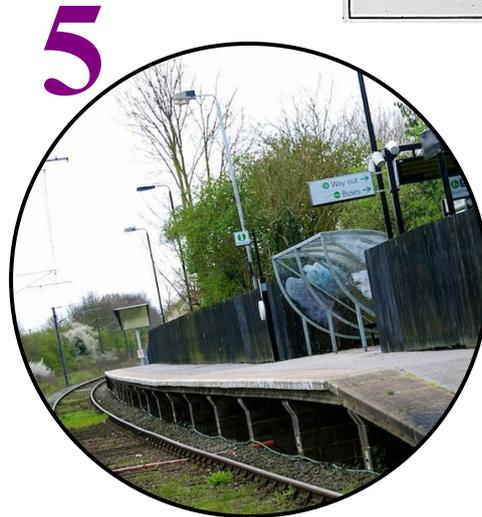
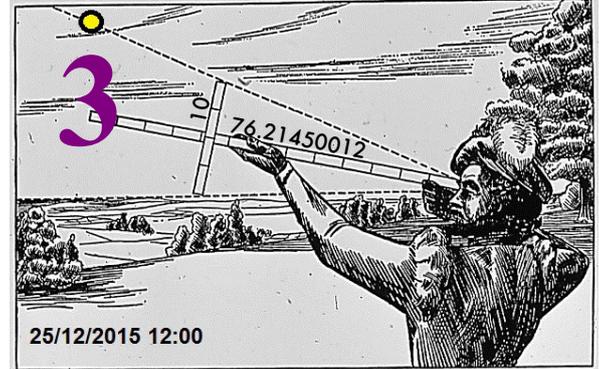
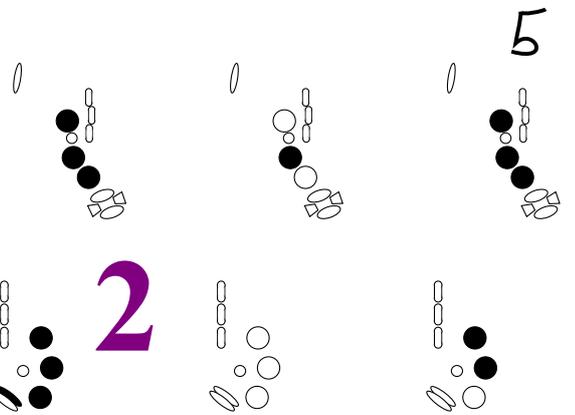
11. Music06, Reach Out I'll Be There by The Four Tops. Embedded in the logo is Morse code spelling "Take IR remotes www.google.com/s4bti3". The short link is to a YouTube video on testing that remotes are working. This is a strong hint to take remotes to the treasure site. During the hunt the associated YouTube account was deactivated so www.google.com/glzt8a was suggested instead.

839. The cows have been in the corn by the sound of it. There's not much left on top?

840. Which Scottish isle doubled as a far-distant planet?

841. Where do ducks, sleeping pigs and a flushing loo come together in a picture of light?

842. What first name is revealed by the combination of * and B?



7

5	3					8	
	6			9	1		
				6	3	5	
				1			4
		2			6		
7			9				
	8	6	2				
		5	8			6	
	2					7	3

843. You are in a western democracy in an area that could contain nearly 5 million Old Trafford football pitches and you cannot use your mobile phone. What is the nearest capital city (less than 250km) and why does this situation exist?

844. What laughable aristocratic nickname was shared by Wolf, James, Norman and William?

845. What food connects ascot coast, costa and tosca?

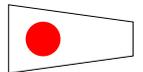
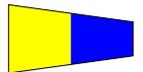
No 1. Train Stops



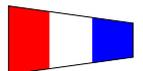
1. Questions.

2. Saxophone code spelling **1** FOG

3. Jacob's **2** Staff, in navigation the instrument was used to determine angles, for instance the angle between the horizon and Polaris or the sun to determine a vessel's latitude. The original Jacob's staff was developed in the 14th century. Using simple trigonometry the angle of elevation of the sun is 14.95°. When this is coupled with the date and time it defines a lat/lon square on the globe. The longitude range is broad and no help but the latitude range is small and will confirm the station as How Wood. An approach to finding a station this way is be use <http://www.esrl.noaa.gov/gmd/grad/solcalc/>, enter a UK lat/lon, GMT, date and noon. Then drag and release the "mapicon" until the required elevation has been found. Then continue dragging and releasing the mapicon whilst remaining within the required elevation until the station is found.



4. These are International maritime signal flags that should show Latitude **3** 51 degrees 43 minutes. However, this is giving too much away so all bar the latitude flag are obscured.



5. How **4** Wood station.

6. Pin-hole camera. Hint to pin-hole **5** code on pages 1, **6** & 13 and upside down puzzle on page 13. QR code is "Model **6** 121/1" another hint to the pinhole code and its solution, see pages 12 & 13.

7. Sudoku solution is **7** on right. Take cipher text from QR code in centre
OGDNDIHTWTOFKAHECBS**7**FEUSOAPEMESNINWOSBATIERTET
LLSCAEOCNOSAUYYMAFTOHCNARESITIVEIST

and transpose each 9 letters as per the solution lines of the Sudoku to reveal

DIGDOWNTHEBACK**9** OF THESOFASPUTINSOMENEWBATTERIESC
OLLECTASMANYASYOU CANFORTHESITEVISIT

The caption is an anagram of **10** **transposition** and a hint at the Sudoku solution and stations.

5	3	1	7	4	2	9	8	6
8	6	7	5	2	9	1	4	2
2	9	4	1	8	5	3	5	7
6	5	8	3	2	1	7	9	4
9	1	2	4	7	5	6	3	8
7	4	3	9	6	8	5	2	1
3	8	6	2	9	7	4	1	5
4	7	5	8	1	3	2	6	9
1	2	9	6	5	4	8	7	3

8. Questions

9. Music**11**08, Crocodile Rock, Elton John. Embedded in the logo is Morse code spelling "Keep **12** looking". A hint that there is a lot of steganography about.

940. Which quotation produced gold for the Queen at a place once called East Cote?

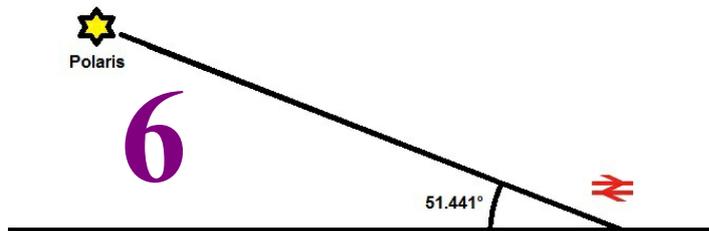
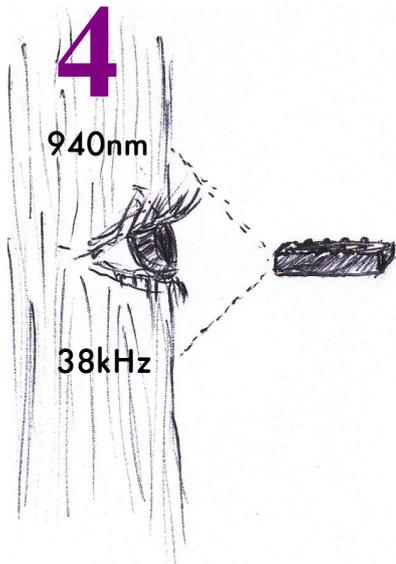
941. Who is always entitled to carry passport number one?

942. Which actress, acquainted with Samuel Johnson, can still pull today?

943. Where are a groyne and cliff cold, and a woodland and beech leaves warm?

944. Who was exterminated in February 2013?

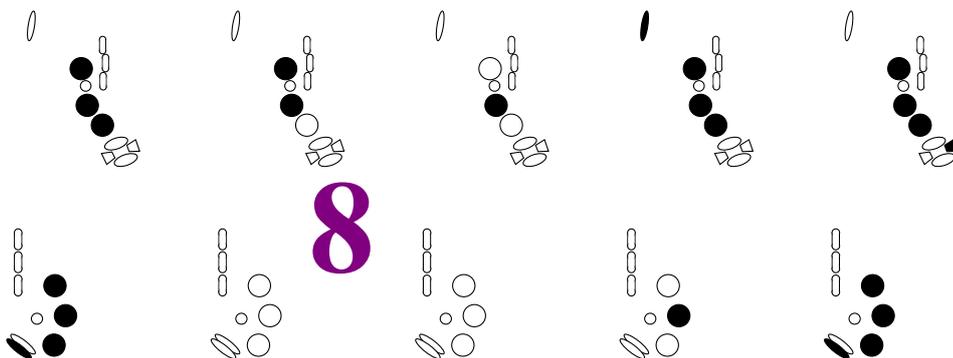
945. Whose picture was in the shop first?



946. Which Polish town is named after a famous French food preserver?

947. Whose suite was mistakenly, as it later transpired, completed by a third party in 2000?

948. Which European suburb might be worth 885 Euros and why?



1. Questions

2. The mariner's astrolabe, also called sea astrolabe, was an inclinometer used to determine the latitude of a ship at sea by measuring the sun's noon altitude (declination) or the meridian altitude of a star of known declination. A hint as how to use 6 below. The world's oldest mariner's astrolabe has a confirmed date of 1554, salvaged from the wreck of the San Esteban.

3. International maritime signal flags should be shown here for Latitude 51 degrees 26 minutes to confirm 6 below. They are largely obscured by the burn mark because they give too much away. Latitude is left visible as a hint that this is achievable.



4. 940nm is typical wavelength of TV remote controls, 38kHz is typical carrier frequency of TV remote controls and the remote control is aimed at one of the trees on the cover page. This is a hint to take at least one remote control with you when searching for the treasure and point it at a tree with an eye (actually an eye outline on a bird box)

5. Earley station

6. The elevation of Polaris in the night sky as seen from the station. The elevation is the latitude of the observer and so confirms the station as Earley.

7. Questions

8. Saxophone code CLOUDY

9. Note the Y is burnt out to hint that Y is excluded from the cipher alphabet.

10. In the burnt edge B-s is just visible. This is really +B-s and is to be applied to the group whose music is emanating from the ATH Corp logo, namely the Eagles. Eagles plus B minus s is Beagle, ie a hint towards the Voyage of the Beagle.

11. Music09, Hotel California, the Eagles. Embedded in the logo is Morse code spelling "Keep listening". A hint to listen to the many sound files that are about.

1225. Where did many drown thanks to a Countess?

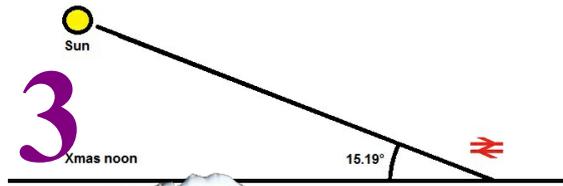
1226. Whose restless night allowed a subsequent watery victory?

1227. He subsisted on a diet of free-range pork and died shortly before the beginnings of a panacea could be identified?

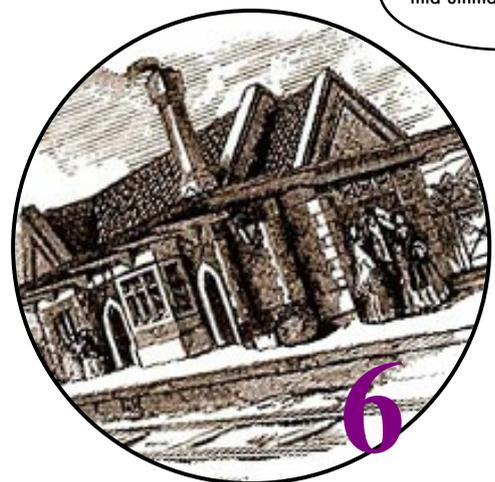
1228. What profiteth it a man if he hide his light - in a retrospective volume?

1229. Whose crash on "Boa" led to improved safety?

				6			
5	8		9				
1				4	5		8
8		4	2				9
	9						7
	3					6	1
	6		7	2			5
					9		4
				5			6



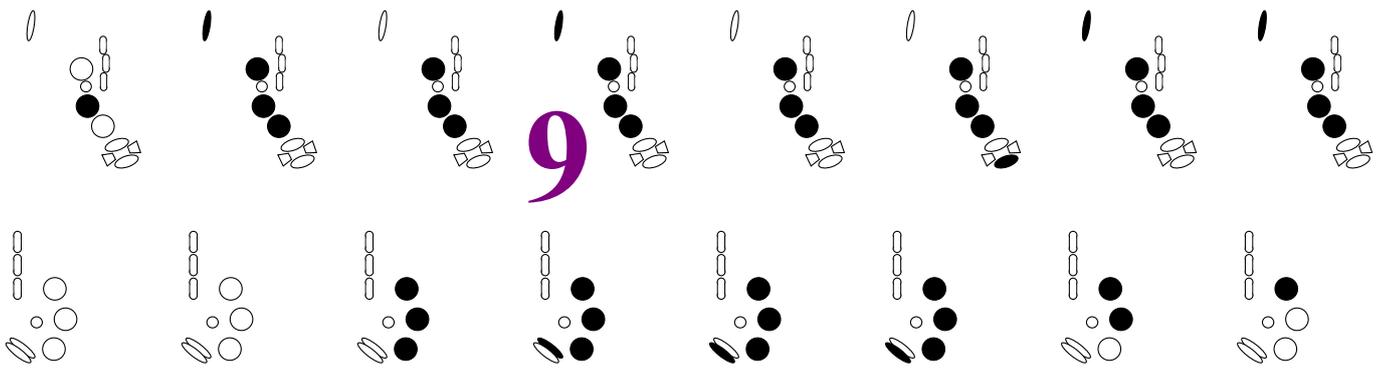
No 2. M



1230. Whose reception of a CQD resulted in a blue plaque in a Nottinghamshire village?

1231. What form of massage became a massive internet hit?

1232. Whose alleged repeated letter writing ensured that he got another shot at gold?



1. Questions

2. Sudoku solution is on right. Convert numerics to letters (A=1, B=2, ...) and add to

Cipher text in QR code in centre

QDUHIROCKOZCCBMSXNZGWRDDJHAWZNZSFIZKJFMQZLPM
GGLNNHMXNSBXLIJKGHDGBIHKKCJCJEKOHJBMW

using modulo 25 code to reveal

THEPOSTERTHELETTERANDTHEPDFAREALLIMPORTANTTOIO
URQUESTKEEPLOCKINGLISTENINGSUMMING

Note the Y in the message is replaced with I in keeping with the Modulo 25 code excluding Y.

The caption should read No 2. Mouldy Dad 50 which is an anagram of "Add modulo 25 no Y" but we burnt it out as it seemed to give too much away.

3. The data defines a lat/lon square on the globe. The longitude range is broad and no help but the latitude range is small and will confirm the station as Twyford. An approach to finding a station this way is use <http://www.esrl.noaa.gov/gmd/grad/solcalc/>, enter a UK lat/lon, GMT (0), date and noon. Then drag and release the "mapicon" until the required elevation has been found. Then continue dragging and releasing the mapicon whilst remaining within the required elevation until the station is found.

4. Christopher Columbus and he is saying (in Italian) "You should see my last picture". This is a pointer to the director Chris Columbus and his most recent film Pixels and a hint to look at some of the images at a pixel level and uncover the Morse code.

5. International maritime signal flags should be shown here for Latitude 51 degrees 29 minutes to confirm 3 above. They are largely obscured by the burn mark because they give too much away. Latitude is left visible as a hint that this is achievable.

6. Twyford station

7. Questions

8. A Davis quadrant. This is a backstaff, a navigational instrument that was used to measure the altitude of a celestial body, in particular the sun or moon. When observing the sun, users kept the sun to their back (hence the name) and observed the shadow cast by the upper vane on a horizon vane. This version was invented by the English navigator John Davis who described it in his book Seaman's Secrets in 1594. It is a hint as to how to use the information in 3 above.

9. Saxophone code OVERCAST

10. Music 10, I Run to You, Whitney Houston. Embedded in the logo is Morse code spelling "Keep summing". A hint to use addition in the ciphers.

3	4	9	8	6	1	5	2	7
5	8	2	9	3	7	1	6	4
1	7	6	2	4	5	9	8	3
8	1	4	5	7	6	3	9	2
6	9	5	3	1	2	4	7	8
2	3	7	4	9	8	6	5	1
9	6	1	7	2	4	8	3	5
7	5	3	1	8	9	2	4	6
4	2	8	6	5	3	7	1	9



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1420. Which television programme was originally intended to mock the Belgians and the Kuwaitis?

1421. What is broken not far from 16° 51'N 11° 57'E?

1422. Who was the first amateur to go where a Microsoft executive and a poker player would later follow?

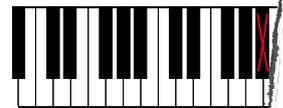
1423. Why have Cardiff, Stockport and possibly Doncaster nothing in common?

1424. Whose "corpse" during the firemen's strike in 1978 provoked complaints from thousands of pet-lovers?



2

3



6



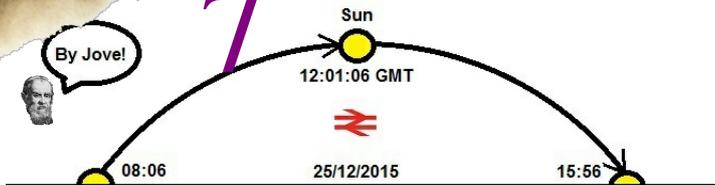
5



4

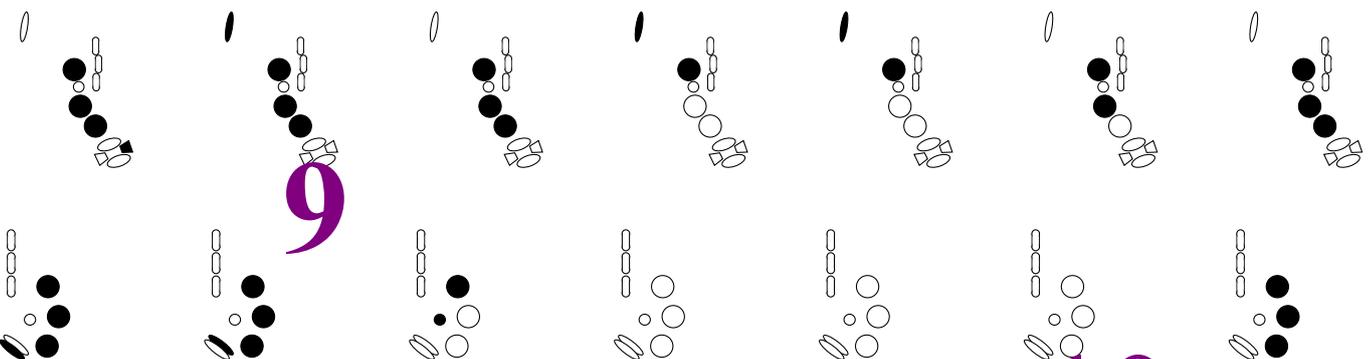


7



1425. Where did Elizabeth leap forward in late 2013, followed 12 weeks later by her sister Victoria?

8



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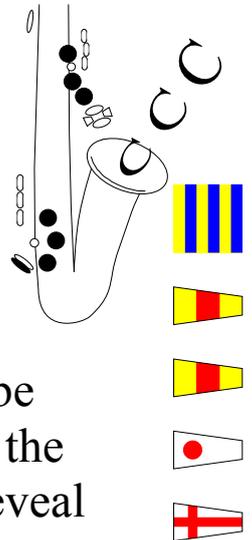


1. Questions

2. The Celatone. On a breezy September morning in 1617, legendary astronomer Galileo Galilei was fastened into a chair, secured to a small boat, floating in a pool of water, on the deck of a ship in the Tuscan port of Livorno. Strapped to his head was a helmet with a telescope welded to its eye slit. He called the device the 'celatone' and he was convinced that it would make him one of the richest men in Europe. He was wrong. The problem Galileo was trying to solve was one of longitudinal navigation using Jupiter's moons. <https://medium.com/@jbenenson/the-celatone-galileos-forgotten-failure-676002694988#.5109s34gt>

3. On the keyboard the 25th note, of 26, from left hand end is struck out. This indicates that if the letters A-Z were overlaid on the keys then Y would be struck out. This is a clue to the Saxophone code. The code is the Saxophone

fingering for A-Z, eg C 



4. These are International maritime signal flags that should be showing Longitude 00 degrees 18 minutes. However, only the longitude flag is showing which is another hint that 7 will reveal longitude. The missing flags are on the right.

5. Wemyley Central station.

6. Man looking through magnifying glass is a hint to look very closely at these pages, down to the pixel level! A further hint is the tiny x64 in the magnifying glass which corresponds to the typical maximum magnification in Adobe Reader of 6400%.

7. The date, time that the sun is highest in the sky and sunrise and sunset times define a lat/lon square on the globe. The latitude range is broad and no help but the longitude range is small and will confirm the station as Burnham. An approach to finding a station this way is to use <http://www.esrl.noaa.gov/gmd/grad/solcalc/>, enter a UK lat/lon, GMT, date and noon. Then drag and release the "mapicon" until the required sunrise, sunset and solar noon has been found. Then continue dragging and releasing the mapicon whilst remaining within the required sunrise, sunset and solar noon until the station is found. Galileo's head and "By Jove" are a nod to the Celatone and his search for a solution to the Longitude problem.

8. Questions

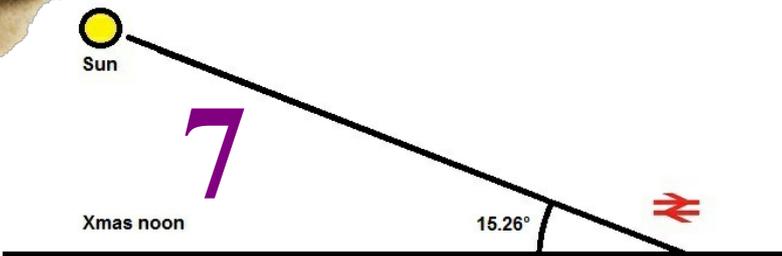
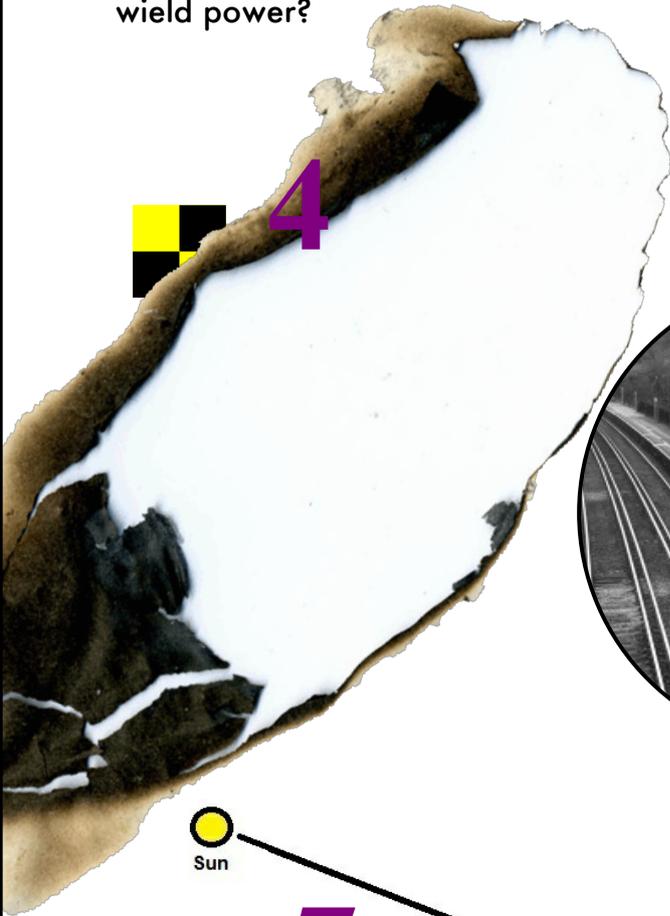
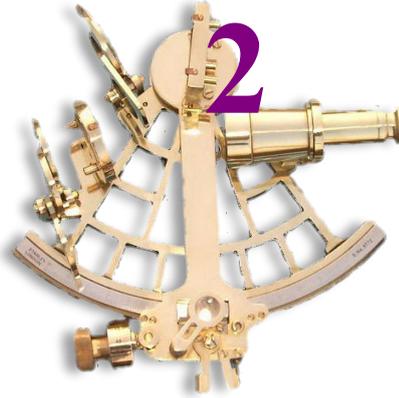
9. Saxophone code DRIZZLE

10. Music 11, I'm a Believer, The Monkees. There is no embedded Morse code in this logo.

1455. Which Swahili game was built into a great success?

1456. Who, after a brief flying career and two years out, became the star of a soap?

1457. Excluding the City of London, where inside the area covered by the Metropolitan Police is there an area where constables from another force wield power?



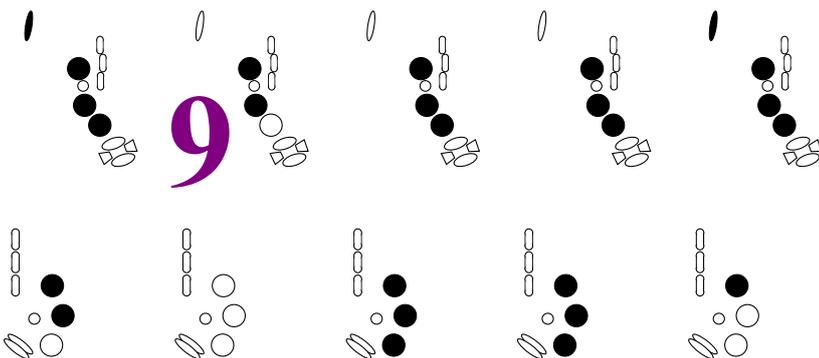
1458. You are in a basement. There are three switches on the wall, two of which are useless; one is connected to a light bulb in the attic. You fiddle with the switches before going to the attic where you are able to determine which switch is working. How?

8

1458. Who were united in 1987 then divided in 1996, before achieving comparative success?

1459. Early in the last century, the loss of Sussex led to the death of musical pomegranate trees. What caused this?

10

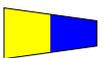


1. Questions

2. A Sextant. The principle of the instrument was first implemented around 1730 by John Hadley (1682–1744) and Thomas Godfrey (1704–1749) but it was also found later in the unpublished writings of Isaac Newton (1643–1727). Common uses of the sextant include sighting the sun at solar noon or Polaris at night (in the Northern Hemisphere) to determine latitude. A sextant can also be used to measure the lunar distance between the moon and another celestial object (such as a star or planet) in order to determine Greenwich Mean Time and hence longitude.

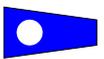
3. Eye chart read in reverse spells
EVENATHHUNTERS WITHGOOD EYESIGHT WILL NEED TO USE THE
MAGNIFYING GLASS Yet another hint to look very closely at this hunt and use the Zoom (magnifying glass) capabilities or your PDF readers.

4. International maritime signal flags should be shown here for Latitude 51 degrees 24 minutes to confirm 5 below .They are largely obscured by the burn mark because they give too much away. Latitude is left visible as a hint that this is achievable.



5. Virginia Water station

6. This is perhaps a too well known puzzle but I liked it. “You switch on switches 1 and 2, wait a minute, switch off two and then go to the attic. In the attic you check if bulb is on (switch 1), hot (switch 2), or cold (switch 3).”



7. The data defines a lat/lon square on the globe. The longitude range is broad and no help but the latitude range is small and will confirm the station as Wembley Central . An approach to finding a station this way is use <http://www.esrl.noaa.gov/gmd/grad/solcalc/>, enter a UK lat/lon, GMT (0), date and noon. Then drag and release the “mapicon” until the required elevation has been found. Then continue dragging and releasing the mapicon whilst remaining within the required elevation until the station is found.

8. Questions

9. Saxophone code SLEET

10. Music12, Shutdown, Gordon Lightfoot Embedded in the logo is Morse code spelling www.ActonHospital.co.uk. This site hints that you should phone the hospital if you have not already done so. The phone number is in the Consultant Letter.

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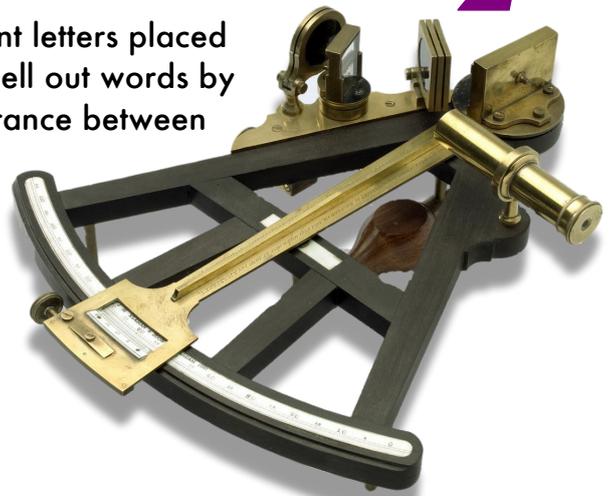
1477. Name the missing member of this group 9824, 9827, 9829, ...?

1478. Which serial's cancellation denied the public a deep truth until recently?

1479. Where might you be caught out by Plato?

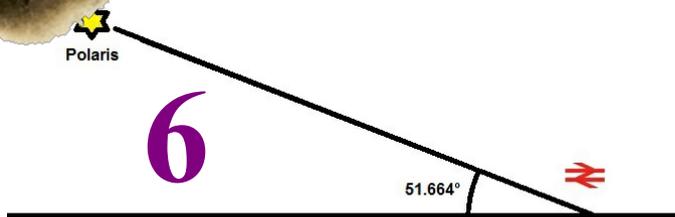
1480. A circular table of radius 100cm has 12 different letters placed equally at points around its circumference. You can spell out words by moving from one letter to any other, so long as the distance between the two letters is a whole number of cm. By starting at one letter you can spell out a day of the week; by starting at another you can spell a month. What are the day and the month?

1481. Who first suggested that we know a, b and c, but not x, y and z?



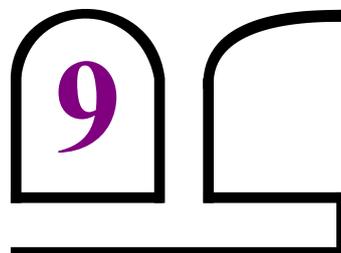
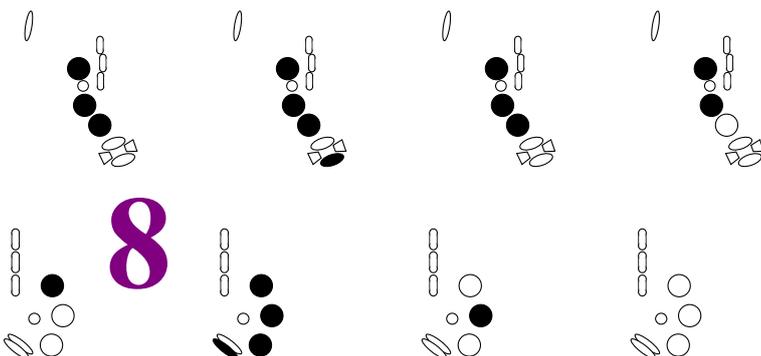
16x		7+	
2-			
	12x	2÷	
		2÷	

No 3.



1482. A sporting hero himself, he had three sons, of whom the eldest, named for him, died of appendicitis, aged only 30, the second might be said to have proved himself truly admirable and the youngest died at the crease after hitting a boundary to bring his side's total to 300 for 8. Who was he?

1483. Who found an experimental treasure whilst watching a little TV?

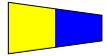


10

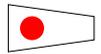


1. Questions

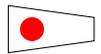
2. The Octant. Two men independently developed the octant around 1730: John Hadley (1682–1744), an English mathematician, and Thomas Godfrey (1704–1749), a glazier in Philadelphia.



3. International maritime signal flags should be shown here for Latitude 51 degrees 40 minutes to confirm 5 below. They are obscured by the burn mark because they give too much away.



4. Watford Junction station.



5. A KenKen with a QR code slightly obscuring a 4 with no operator. The solution is the grid on the right. The QR code yields EGRGSNESAOTSSEI which can be laid out on the grid

2413

1234

3142

4321

as shown in the table on the left and when the letters in vertical columns are transposed as per the values in the vertical columns of the grid we get the adjacent table which reads SEASONS GREETINGS when read down and left to right. Note that the caption is obscured by the burn mark since I thought we ought to have one, consistency, but had no idea what to put there.

6. The elevation of Polaris in the night sky as seen from the station. The elevation is the latitude of the observer and so confirms the station as Watford Junction.

7. Questions

8. Saxophone code HAIL

9. A standard remote control symbol used on many TVs, video equipment and remote controls (albeit rotated 90 degrees counter clockwise). A hint that remote controls are important.

10. Music13, The Rose, Bette Midler. Embedded in the logo is Morse code spelling "Disquisitiones". The modern approach to modular arithmetic was developed by Carl Friedrich Gauss in his book Disquisitiones Arithmeticae, published in 1801. This is a hint that modular arithmetic is significant in the ciphers.

1501. What hat accessory was a sign of the times at Ladysmith?

1502. Who of the following is the odd man out and why? Humphry Repton, Mao Tse-Tung, Ludwig Wittgenstein, Andrew Lang.

1503. SOS in a single word?

4. Simon and Anthony wanted to know the date Dave finished this ATH. Dave gave them the following possible dates:

- May 15 May 16 May 19
- June 17 June 18
- July 14 July 16
- August 14 August 15 August 17

Dave told Simon and Anthony separately the month and the day of the date respectively.

Simon : I don't know the date but I know that Anthony does not know too.

Anthony: At first I didn't know the date but I know now.

Simon: Then I also know the date.

So when did Dave finish this ATH?

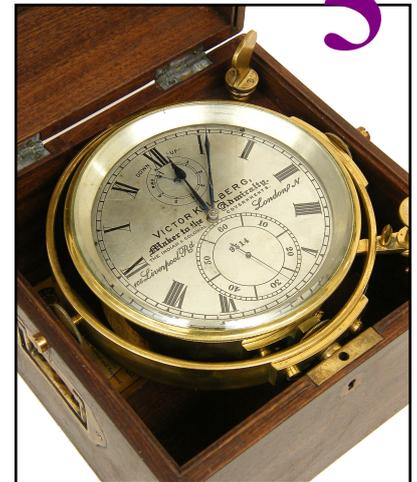
3



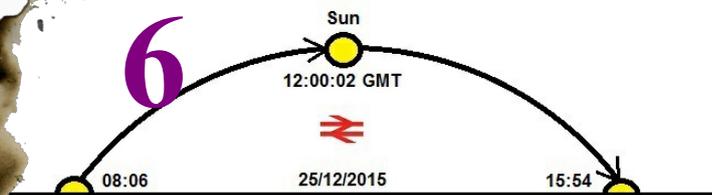
4



5



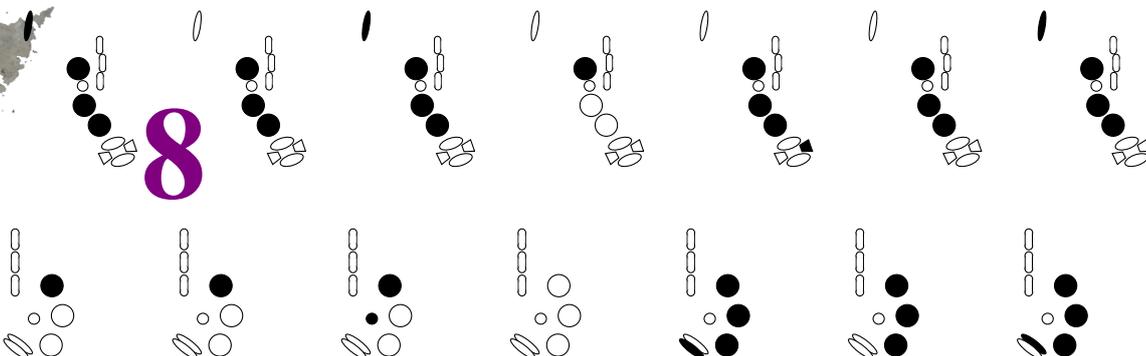
6



1504. Which day had a halcyon pseudonym?

1505. The inability of the daughter of which poet to pronounce her 'r's led to the invention/popularisation by another author of what is now a common girl's name?

8



9



1. Questions

2. This is puzzle from a Singapore Secondary contest. The answer is described as follows:

Out of the 10 dates, the day ranges from 14 to 19, with only 18 and 19 each occurring once. If the date is 18 or 19, then Anthony would have known the date since he was told the day.

But how did Simon know that Anthony did not know?

If Dave had told Simon that the date was May or June then it is possible that the day maybe May 19 or June 18. This meant that Anthony must have known the date. The fact that Simon knew that Anthony did not know meant that Dave told Simon that the date was either July or August.

Initially, Anthony did not know the date, so how did he know after Simon had first spoken?

Out of the 5 remaining dates in July and August, the day ranges from 14 to 17, with only 14 occurring twice. If Dave had told Anthony the day was 14, then Anthony would not have know. The fact that Anthony knows the date means that the day is not 14. So now we are left with 3 possible dates: July 16, August 15 and August 17.

After Anthony has spoken, Simon now knows the date. If Simon was told the date was August then Simon would not have known because there are two possible dates in August.

So the date was **July 16**.



3. International maritime signal flags that should be showing Longitude 00 degrees 02 minutes. However, only the longitude flag is showing which is another hint that 6 will reveal longitude. The missing flags are on the right.

4. Waltham Cross station

5. A marine chronometer is a timepiece that is precise and accurate enough to be used as a portable time standard; it can therefore be used to determine longitude by means of celestial navigation. John Harrison's H4 is generally regarded as the first in 1761.

6. The date, time that the sun is highest in the sky and sunrise and sunset times define a lat/lon square on the globe. The latitude range is broad and no help but the longitude range is small and will confirm the station as Waltham Cross. An approach to finding a station this way is to use <http://www.esrl.noaa.gov/gmd/grad/solcalc/>, enter a UK lat/lon, GMT, date and noon. Then drag and release the "mapicon" until the required sunrise, sunset and solar noon has been found. Then continue dragging and releasing the mapicon whilst remaining within the required sunrise, sunset and solar noon until the station is found.

7. Questions

8. Saxophone code THUNDER

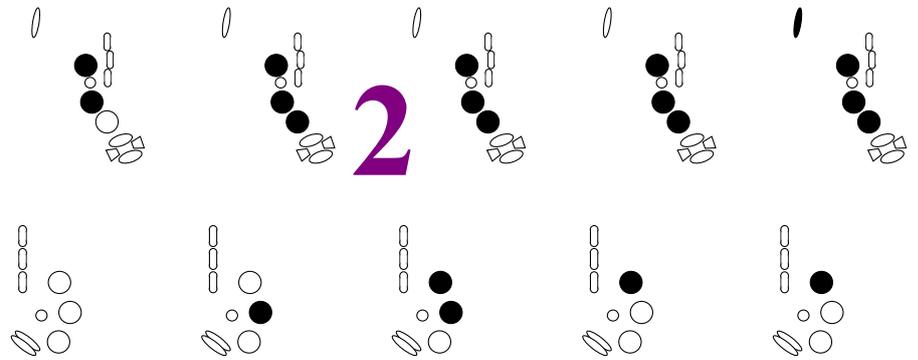
9. Music 14, MacArthur Park, Richard Harris. Embedded in the logo is Morse code spelling "Arithmeticae". The modern approach to modular arithmetic was developed by Carl Friedrich Gauss in his book Disquisitiones Arithmeticae, published in 1801. This is a hint that modular arithmetic is significant in the ciphers.

1585. Which book did a Fellow of the Royal Geographical Society write because a friend had accused him of being the most British person he knew?

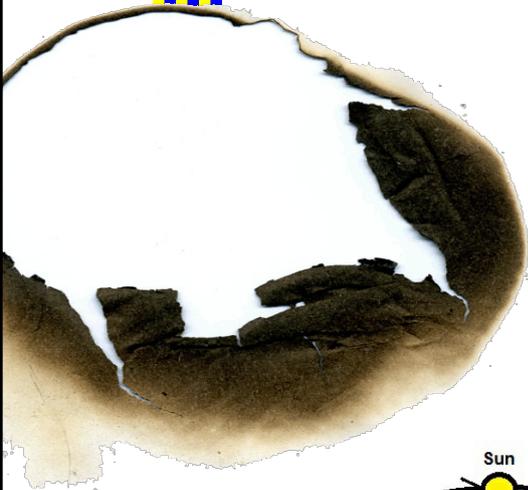
1586. Whose animal passions began with Peggy and Susan?

1587. Who moved in 2001 from central London to the supposed site of his most famous gallantry?

1588. What is red because chocolate brown was too expensive?



4

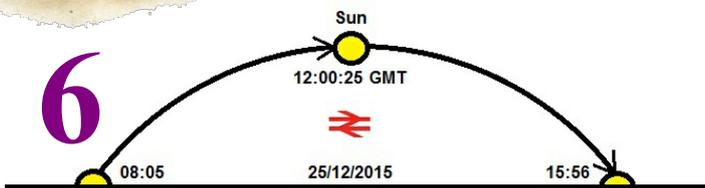


5

3



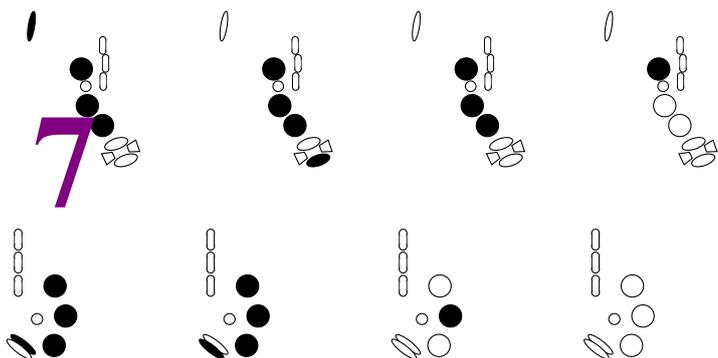
6



8



9



1. Starting on page 12 and running on into page 13 there are pinholes in the letters of the questions. The pinholes are one after the letter of the message (as indicated by the +1 on page 1). The message

SUM 6 CODES MOD N P1 PHONE ANSWERS

Indicating that the 4 messages from the QR codes on page 1, the message from the telephone extensions and the first letter of the answers should be summed modulo 25 to reveal

EACHPAGEJOINDOGMOORINGTOSTATIONVIAGREATCIRCLEWHERECIRCLES CROSSFINDTRE ASURE

2. Saxophone code LIGHT RAIN

3. An Atomic Clock. A laboratory representation of the Deep Space

Atomic Clock, with a quarter alongside the unit for size comparison, and without the electronics required for operation. At just under 0.2 cubic feet and weighing about 7 pounds, the clock is smaller, lighter and more stable than any other atomic clock flown in space.

4. International maritime signal flags that should be showing Longitude 00 degrees 07 minutes. However, only the longitude flag is showing which is another hint that 6 will reveal longitude. The missing flags are on the right.



5. Vauxhall station.



6. The date, time that the sun is highest in the sky and sunrise and sunset times define a lat/lon square on the globe. The latitude range is broad and no help but the longitude range is small and will



confirm the station as Vauxhall. An approach to finding a station this way is to use <http://www.esrl.noaa.gov/gmd/grad/solcalc/>, enter a UK lat/lon, GMT, date and noon. Then drag and release the "mapicon" until the required sunrise, sunset and solar noon has been found. Then continue dragging and releasing the mapicon whilst remaining within the required sunrise, sunset and solar noon until the station is found.



7. See 2 above

8. This picture represents the story of "The Hitchhiker's Guide to the Galaxy" by Douglas Adams. "...one girl sitting on her own in a small cafe in Rickmansworth suddenly realized what it was that had been going wrong all this time... Sadly, however, before she could get to a phone to tell anyone about it, a terribly stupid catastrophe occurred, and the idea was lost forever." So this is a hint to Rickmansworth and ties in with the church in the Poster (she was the girl in the cafe).

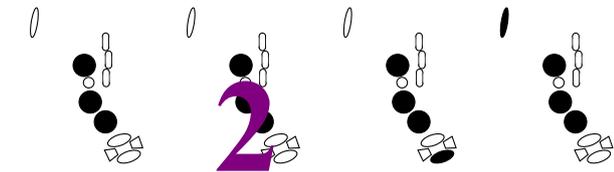
Music 18 in the black hole is "Brown Sugar" by the Rolling Stones and is the name of a small cafe in Rickmansworth.

Music 54 around the cup and saucer is Hot Coffee by La Serena and is a hint towards Fitzroy, it was his nickname on the Beagle.

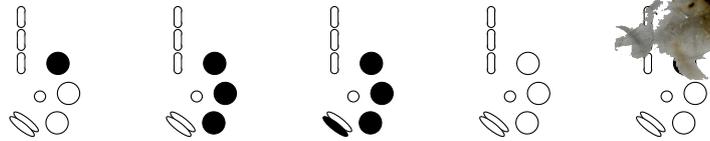
9. Music 15, All right now, Free

13

1617. Which doctor once appeared on Q?



1618. Abroad they were tigers, sharks and lions, but what were they called in the UK?



1619. What was the first name of the girl from Asch who lost out at the carnival to the bright lady who wasn't quite tender-hearted?

1620. Who helped a PC organization become symbolic in 2015?

4



5



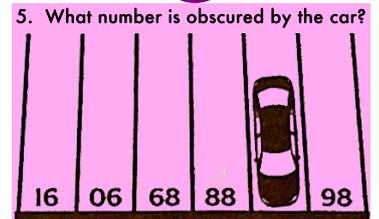
6



7



8



5. What number is obscured by the car?



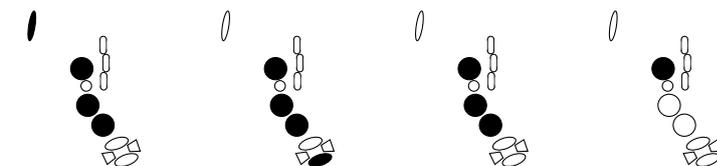
1621. What, in other words, is Margaret's mum? The English might see it as a wee Scottish plot.

1622. Which British footballer's career was ended by a crash, having won several League titles, the FA Cup, the League Cup, the UEFA Cup, the European Cup and the Cup Winners Cup?

10

1623. Whose saucy product was X-rated in 2014?

1624. Max invented this in 1957?



12

Why is the fifth unriest joke with a fringe of 2?



13

1. Questions. See page 12 for details of the pinhole code on this page.

2 & 11. Saxophone code HEAVY RAIN

3. Note that the Y is burnt out to indicate that Y is excluded from the modulo cipher.

4. A setter using a SatNav.

5. International maritime signal flags showing Speed in knots of 33 and Distance in nautical miles of 0 (rounded down). This repeats the information in 9 below. Not really a lot of use.

6. Not used.

7. Ruislip station.

8. Turn puzzle upside down to reveal the answer, 87. This question was set for six-year-old children in Hong Kong. They solved it in seconds, most adults take a little longer.

9. A SatNav display which is taking you to Ruislip station.

10. Questions.

11. See 2 above.

12. This obscured question is showing “fifth .. funniest joke...Edinburgh fringe...2012”. This is a hint to look up the joke which is by Chris Turner – “I’m good friends with 25 letters of the alphabet ... I don’t know why.”. Another hint that Y is to be ignored in the code.

13. Music16, Starway to Heaven, Led Zeppelin

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Mod 25 Cipher

This cipher simply adds text strings together modulo 25 (A=0, B=1, ...X=23, Z=24) to produce cipher/clear text. Operating on each column independently, so text strings are of the same length. It can also be used on a numeric string and strings can be mixed. Note that the letter Y is excluded, if it appears in a text string the letter I is substituted or it is omitted from the clear text altogether.

There are several hints not to use the Y:

1. ...**know why** in the logo
2. First letters of music song titles in logos spell MERRCHRISTMAS, again no letter Y
3. Burnt out Ys in Saxophone code.

Eg ABC added to PQR yields cipher text of PRT

WFT added to 789 yields clear text of DAY

Shipping Forecast Regions in puzzle on page 4.

https://en.wikipedia.org/wiki/Shipping_Forecast

VIKING	FISHER	BISCAY	MALIN
NORTHUTSIRE	GERMANBIGHT	TRAFALGAR	HEBRIDES
SOUTHUTSIRE	HUMBER	SOLE	BAILEY
FORTIES	THAMES	LUNDY	FAIRISLE
CROMARTY	DOVER	FASTNET	FAEROES
FORTH	WIGHT	IRISHSEA	SOUTHEAST
TYNE	PORTLAND	SHANNON	ICELAND
DOGGER	PLYMOUTH	ROCKALL	

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Decoding the answers

The pinhole code on pages 12-13 reveals the message.

SUM 6 CODES MOD N P1 PHONE ANSWERS

This means that we should add together (using the Mod 25 cipher) the 4 QR codes on page 1, the message from sending emails to Acton Hospital and the first letter of the answers, namely:

COUNTTHEDAISCOUNTALLTHEQUESTIONSTHEEVOLVINGJOURNEIOFPHILOSANDTHEWEATHERMAN

ITISWORTHUSINGTHEFIRSTSIGNIFICANTLETTEROFTHEANSWERTOEACHQUESTIONEGSURNAMES

THEPOSTERTHELETTERANDTHETHIRTEENSHEETSINDICATEITISWORTHROLLINGTHELIFEBOATS

SAOQZCPULQRITUMLQUQDIPDEDTGSSEPXDRIAAZKGLAIJSWQADDFKEIKCPQLIRUBZQECCSMVZR

CONGRATULATIONSIYOUARECIRCLINGINONTHESOLUTIONKEEPLOOKINGLISTENINGANDSUMMING

FVSOTWEMKJORTHSEHCHWLTEPSPCWZHSPLOELCBMDMTPBSJTKMTDFTFDGBTWNDHBERPBDECNRHH

If we do this then the following message is revealed:

EACHPAGEJOINDOGMOORINGTOSTATIONVIAGREATCIRCLEWHERECIRCLES CROSSFINDTREASURE

Since all the strings are 74 characters some may add them together without the need for the pinhole code.