



Science Table Quiz 2009

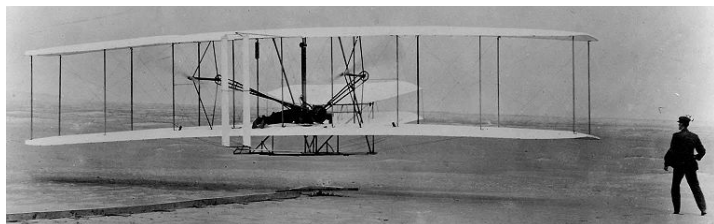


Chemistry



1. What colour is copper (II) sulphate?
2. What element has atomic number 16?
3. What compounds are formed by the reactions of alcohols with organic acids?
4. Does adding salts to water generally increase the boiling point, decrease the boiling point or leave it the same?
5. What toxic gas has the formula HCN?
6. What is ethyl cyanoacrylate better known as?
7. Who invented a flat glass dish used in both chemistry and biology?
8. What common indicator is extracted from the lichen *Rocella tintoria*?
9. What gas do you get if you react calcium carbide with water?
10. What colour does sodium impart to a flame or a fluorescent light?

Engineering Achievements



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9



10

Biology – record holders



1. What is the largest animal that has ever lived?
2. The fastest speed recorded for any animal is a peregrine falcon in a powered dive. Was it a) 200 kph, b) 200 mph or c) 200 ft/s?
3. What record is held by the *Naga Jolokia*?
4. What is the heaviest flying bird?
5. What is the largest venomous reptile?
6. What record does the Bumblebee Bat hold?
7. Which type of tree is the tallest in the world?
8. A specimen of *Lomatia tasmanica* (King's Holly) has been estimated to have what distinction?
9. Which organism causes the biggest killing transmissible disease?
10. What record does the Guinness Book of Records accord the Carabao Mango?



Mathematics & IT



1. Whose *last* theorem, conjectured in 1637, was only proved in 1995?
2. What are the solutions to $2x^2 + 5x - 3 = 0$?
3. How many edges are there on an octahedron?
4. The name for which area of mathematics comes from an Arabic word meaning “Restoration”?
5. Which version of Windows has recently been released?
6. Which micro-blogging website was created by Jack Dorsey in 2006?
7. In statistics, what is the plot of the normal distribution commonly called?
8. What is the popular name for the region around the Santa Clara Valley near San Francisco?
9. Which Unix-like operating system has Tux the Penguin as its mascot?
10. Name one of the two largest sellers of personal computers worldwide.



Physiology – the Human Skeleton



1. Where do you find the metacarpals?
2. How many separate bones form the (neuro)cranium or braincase?
3. What is the largest bone in the body?
4. And the smallest?
5. What is the medical name for the collar bone?
6. What is the Scapula better known as?
7. How many vertebrae are there in the normal spine?
8. Where do you find the fibula?
9. And where do you find the ulna?
10. How many bones are there in the pelvic girdle?



Astronomy



1. **NASA recently crashed two satellites into the moon trying to find what?**
2. **What star of spectral classification G2V lies 150 million km away?**
3. **The orbit of which planet was an early confirmation of General Relativity?**
4. **Which two vehicles were landed on Mars on January 2004?**
5. **Which nebula (in Taurus) is the remnant of a supernova observed in 1054?**
6. **What is the brightest visible star (excluding the Sun)?**
7. **& what is the 3rd brightest object in the sky after the Sun & Moon?**
8. **The appearance of Comet hale-Bopp in 1997 prompted the mass suicide of which cult?**
9. **Which planet has its axis of rotation pointing towards the sun?**
10. **What do astronomers believe lies at the centre of the Milky Way?**



Physics: Nobel Laureates



Identify these Nobel Prize winners from date, first letter of surname, nationality & topic:

- | | | | |
|----------|-----|-----|------------------------------------|
| 1. 1901 | R | Ger | discovery of rays named after him |
| 2. 1903 | C&C | Fra | joint researches on radiation |
| 3. 1906 | T | UK | conduction of electricity by gases |
| 4. 1909 | M | Ita | wireless telegraphy |
| 5. 1915 | B&B | UK | crystal structure & X-rays |
| 6. 1918 | P | Ger | quanta |
| 7. 1921 | E | Ger | photoelectric effect |
| 8. 1922 | B | Den | structure of atoms |
| 9. 1923 | M | US | charge on electron |
| 10. 1930 | R | Ind | light scattering |



Medicine



1. What does the H in H1N1 or H5N1 stand for?
2. How many reported swine flu deaths have there been so far this year worldwide: 5000, 50000, 500000?
3. Extracts of the plant *Hypericum perforatum* have been shown in clinical trials to be an effective antidepressant. How is the plant better known?
4. How is the drug Acetaminophen better known?
5. Who performed the first successful human heart transplant?
6. Cannabis is under investigation as a treatment for which eye disease?
7. Who is the Irish Minister for Health (& Children)?
8. Glucosamine and chondroitin are commonly used to treat which complaint?
9. Who invented inoculation in the 1770's?
10. Which heavy metal is used in the treatment of gastric ulcers?

A Miscellany



1. What agricultural product comes from the plant *Camellia sinensis*?
2. How many dinosaur fossils have been discovered in Ireland: A) none, B) one, C) more than 100?
3. Whose law describes the extension of a spring as a function of the load?
4. What organelles in plant cells are responsible for photosynthesis?
5. Which organelles in plant and animal cells supply energy to the cell?
6. The prefix “Nimbo-” and the suffix “-nimbus” signify what about clouds?
7. Who devised a “left hand rule” for electric motors?
8. What is the circumference of the Earth ? (nearest 10,000 km or 5000 miles)
9. Name the Swiss born 16th century physician, author of “Prognostications”.
10. Which 19th century Russian composer was also a noted chemist?



Science Fiction



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4



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6



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8

9



10



Name these SF characters,
Except for No. 10, where you
should name the male actor
(not the one dressed as a robot).