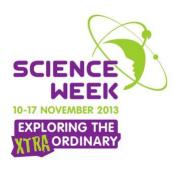


Science Table Quiz 2013



Science in 2013



- 1. Over which Russian city did a meteor explode in February?
- 2. Name one of this year's Science Nobel laureates (physics, chemistry, medicine/physiology).
- 3. Now name another one.
- 4. What is C/2012 S1?
- 5. The remains of which English monarch were identified from DNA in Feb?
- 6. In July microbes were discovered in water from which subglacial Antarctic lake?
- 7. At the latest count, how many moons does Pluto have?
- 8. What man-made object left the solar system on 12th September?
- 9. The removal of toxins from the brain was suggested as a purpose of which activity by the University of Rochester last month?
- 10. On 20th November the European space Agency will launch a space telescope. What will it be called?



Zoology: Irish Native fauna





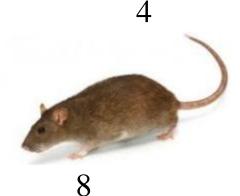








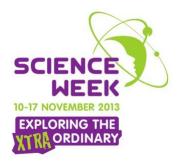








All require two word answers



Earth Sciences

- 1. What line runs around the Earth at $23^{\circ} 26' 15''$ south of the Equator?
- 2. What is the circumference of the Earth at the Equator to the nearest 1000 miles?
- **3.** Which oceanic current runs north from the Cape of Good Hope past the coast of Namibia?
- 4. What is a Pacific cyclone with wind speeds in excess of 64 knots called?
- 5. What was the magnitude of the 2011 Fukushima earthquake (to the nearest whole number)?
- 6. What is the concentration of ozone in the ozone layer: a) about 95%, b) about 1%, c) less than 10 parts per million?
- 7. Which British physicist's name is given to a unit of ozone concentration?
- 8. What is the concentration of carbon dioxide in the atmosphere to the nearest 50 parts per million?
- 9. What is the approximate average annual rainfall in Ireland: a) 1 metre, b) 2 metres, c) 3 metres?
- 10. Is granite a sedimentary, igneous or metamorphic rock?

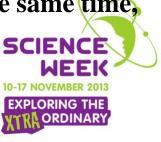




Mathematics (no calculators!)



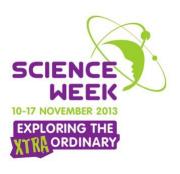
- 1. If a triangle has sides 4, 5 and 6.403, what is its largest angle?
- 2. What is $d(\sin x)/dx$?
- **3.** What is the value of 9! (9 factorial)
- 4. What type of progression is the series $a + ar + ar^2 + ar^3 + ar^4 \dots$?
- 5. Who gave his name to the sequence 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377?
- 6. What is the internal angle of a regular octagon?
- 7. Four of the Platonic Solids are the tetrahedron, the octahedron, the dodecahedron and the icosahedron. What is the fifth?
- 8. The four types of conic sections are the circle, the ellipse, the parabola and the?
- 9. Who devised the concept of "the set of all sets that do not contain themselves"?
- 10. Who invented calculus independently of Newton at around the same time, but didn't publish it until later?



Medicine & Physiology

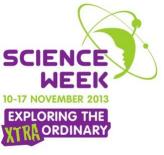


- **1.** What is the largest bone in the human body?
- 2. And the smallest?
- 3. Name the coumarin-based anti-coagulant discovered in the 1920's.
- 4. And the beta-lactam antibiotic also discovered in the 1920's.
- 5. According to the World Health Organisation, six infectious diseases cause more than half of all premature deaths. Five of them are pneumonia, HIV/AIDS, malaria, diarrhoea and tuberculosis. What is the 6th?
- 6. What is the transparent part of the eye that covers the iris & pupil?
- 7. What disease, an infection of the lymphatic system, is caused by Yersinia Pestis?
- 8. How many muscles are there in a human finger?
- 9. Rickets is caused by a deficiency of which vitamin?
- 10. In obesity studies , what does BMI stand for?



Physics

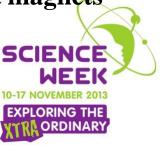
- 1. What constant is approximately 6.7 x 10⁻¹¹ Newtons x metres squared per kilogram squared?
- 2. What particle was recently shown to have a mass of about 125 GeV/ c^2 ?
- 3. What unit of distance is about 3.26 light years?
- 4. Which has the longest wavelength: visible light, infra-red or microwaves?
- 5. What is the cosmic background radiation temperature to the nearest Kelvin?
- 6. In what city was Lord Kelvin born?
- 7. According to Hooke's Law, the force needed to extend a spring by a certain distance is directly proportional to what?
- 8. To raise a note by an octave, by what factor do you need to increase the frequency?
- 9. What property of a substance is given by the speed of light in vacuum divided by the speed of light in a substance?
- **10.** In temperature studies what do the letters CTE stand for?



Chemistry



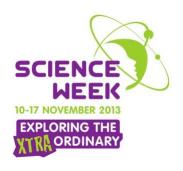
- 1. What is the atomic number of potassium?
- 2. Which politician got a degree in chemistry from Oxford in 1947?
- **3.** And which Russian musician (composer of "*Prince Igor*") was a professional chemist and had a reaction named after him?
- 4. What is the formula of potassium permanganate?
- 5. And what is the oxidation state of manganese in potassium permanganate?
- 6. What is the systematic name for acetic acid?
- 7. What is the most common isotope of Uranium?
- 8. In 1938 which now common word did DuPont decline to register as a trademark for an important class of polymers?
- 9. What is the main use of Alizarin?
- 10. Alloys of which lanthanide make the strongest permanent magnets known?



Miscellaneous Acronyms

What do the following stand for:

- 1. The pesticide DDT?
- 2. The plastic PET?
- 3. In medical imaging, a CAT scan?
- 4. In archaeology, dates BCE?
- 5. In microscopy, the company JEOL?
- 6. In water quality, the BOD?
- 7. On the internet, the HTTP?
- 8. LASER?
- 9. Connected with global warming, the IPCC?
- **10. In science fiction on TV recently, the agency SHIELD?**





Botany - Trees



2



8

3



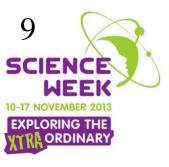






Alder, Black Poplar, Douglas Fir, Holly, Larch, London Plane, May Tree, Rowan, Scots Pine, Sycamore





10

5

Science Fiction



- 1. Which comic book company launched Superman, Batman and Green Lantern?
- 2. In Dr Who, what does the acronym TARDIS stand for?
- 3. Who will play Dr Who from this Christmas onwards?
- 4. Who directed the films "Iron Man" and "Iron Man 2" in 2008 & 2010?
- 5. Who wrote the novel "Jurassic Park" on which the film was based?
- 6. Who played James Kirk in the 2009 "Star Trek" film and its sequel?
- 7. What was the 1996-2000 comedy SF series starring John Lithgow and Kristen Johnston?
- 8. In "Futurama", what sort of creature does Dr Zoidberg resemble?
- 9. Which Scottish SF writer (author of "Consider Phlebas" died this year?
- 10. Which Orson Scott Card novel appears as a film this month?

