

# WESTGATE SCIENCE CLUB

issue 2

November 2010



## making science cool

Did you know...

**Frogs** - instead of drinking water, frogs soak it into their body through their skin.

**Frogs** - can see forwards, sideways, and upwards all at the same time. They never close their eyes even when they are asleep.



**HORSES & COWS** can sleep while standing up.

What is a 'dry cow' ?



**HOW MANY TIMES DO**

**YOU** think your heart beats

every day 19,000 ? 40,000 ? 100,000 or more ?

What size do you think your heart is ?



Like your spread out hand?

Like your fist?

Like one of your feet?

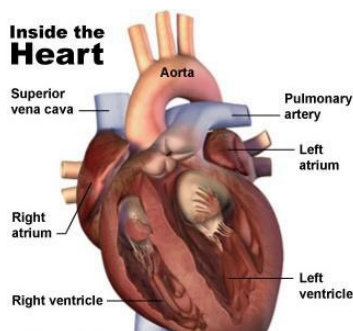
Like one of your knees?

check out the answers on the physics page

[www.westgatescienceclub.org.uk](http://www.westgatescienceclub.org.uk)

In one day your heart beats 100,000 times!  
 The **heart** has 4 chambers, which you can think of as

### Inside the Heart



'rooms' of the **heart**. 2 'atria' and 2 'ventricles'. The **heart** muscle, which beats about 70 times a minute, pumps blood in a one-way path around your body through blood vessels. The **heart** and the vessels are called the 'Circulatory System'. The **heart** valves stop blood from flowing the wrong way.

- A baby's heart beats about 120 times a minute
- A 7 year old beats about 90 times a minute
- An adult heart beats about 70 times a minute



The width of your armspan stretched out is the same as your height? Correct or incorrect?  
 Check your answer on the physics page at [www.westgatescience.org.uk](http://www.westgatescience.org.uk)

Every 2.5 sq cm of your body has about 19,000,000 skin cells!

### Westgate Science Club Word Search The Planets & Seasons

M N O O M N H S R O S  
 R A M S H S O U E R P  
 A U R U U E S M A U M  
 P H E S T N J M O N W  
 W T T P A U A E P S I  
 I T A R P T A R C O U  
 N S G I A P U I U T S  
 T U T N N E E R U U C  
 E E S G U N E A N L S  
 R R E T C U E U P T  
 P T W E S E V B W T N

MARS VENUS EARTH MARS JUPITER  
 SATURN URANUS NEPTUNE PLUTO SUN  
 MOON SPRING AUTUMN SUMMER WINTER  
 WESTGATE SCIENCE CLUB

Have you found what the weather will be for the WESTGATE SCIENCE CLUB? Check out our website [www.westgatescienceclub.org.uk](http://www.westgatescienceclub.org.uk)

Joshua & Rebekah ready to do some experiments

### Making the Kitchen Volcano



Can you remember what this experiment was all about?

Check it out on the contacts page / then 'What we did...' On our web site...

[www.westgatescienceclub.org.uk](http://www.westgatescienceclub.org.uk)



### The Compass Bearings

N = North      E = East  
 S = South      W = West

*Accepting that we are in or near Exeter:*

- 1 Which direction does the wind generally blow from?
- 2 Which direction is the star which stays in the same place in the night sky throughout the year?
- 3 Which direction is the country of France?
- 4 Which direction is the North Pole?
- 5 Which direction does cold weather usually come from?
- 6 Which direction does the sun rise?
- 1 Which direction is the sun at midday?
- 6 Which direction is Africa?

Check out the answers on the physics page at [www.westgatescienceclub.org.uk](http://www.westgatescienceclub.org.uk)

### MAGIC NUMBER FOUR

1. Have your friend think of a number in his or her head, write it down and hide it from you. That number will be called the 'mystery number'
2. Tell them to add five. Now add two and then subtract three.
3. Now have them subtract that by your mystery number. Then ask them if the answer is '4'.

Q1 What is an element? Is it -

- A - a type of kettle?
- B - a boy's name first given in 1872?
- C - a substance made entirely of one type of atom?
- D - a type of chemical compound?
- E - a type of metal that resists heat?

Q2 What is the most common scientific name for water? Is it -

- A -  $\text{WO}_2$ , B - Liquid molecule, C -  $\text{WTO}$ , D -  $\text{H}_2\text{O}$

Q3 What is the world's oldest known food additive?

Is it -

- A - Pepper, B - Vinegar, C - Sugar, D - Salt

Check out your answers on the chemistry page at

6 [www.westgatescienceclub.org.uk](http://www.westgatescienceclub.org.uk)

## WESTGATE SCIENCE CLUB

For dates, times & other events see website

The Science Club is held at the Westgate Church Building  
(opposite The Picture House),  
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e mail [westgatescienceclub@gmail.com](mailto:westgatescienceclub@gmail.com)

photos of our club on the website  
lots of on-line puzzles



**Making Science  
Cool  
for Primary School  
Children  
aged 7 yrs +**

View slide show of our Opening on 10th September 2010  
and see what experiments we did on  
previous club evenings.

at [www.westgatescienceclub.org.uk](http://www.westgatescienceclub.org.uk)

Slide show and photos on the 'contacts' page

On a clear night have a look outside and see what looks like a bright 'star' towards the East and South approx half way up in the sky. Actually this isn't a star it's the planet JUPITER shining brightly. Jupiter has many moons but 4 are bright. Through a good pair of binoculars or a small telescope it would look like this, though the moons may be in a different position.



**ISS - the International Space Station** - Looks like a very bright moving star. Often you can view this in the sky over Exeter.



Go to [www.westgatescienceclub.org.uk](http://www.westgatescienceclub.org.uk) the 'Astronomy' page for the dates and times to view. & see **The ISS** just after 5 pm - Sat 13th & Mon 15th November.

← **\*\* see it from EXETER**



check these out...

- 1 What did the spider do on the computer? !
- 2 How do insects communicate?
- 3 What goes 'choo choo' choo' while online?
- 4 Why did the lumberjack get nowhere with the internet?
  
- 5 How many moons are there around the 3rd planet from the sun?
- 6 Which planet has a rover vehicle from earth ?
- 7 Which planet has a lot of rings ?
- 8 Which planet has a big red spot ?
- 9 Which planet is known as the 'blue planet' and why ?
- 10 Which is the biggest planet in the Solar System ?

Check the answers on the Astronomy page at [www.westgatescienceclub.org.uk](http://www.westgatescienceclub.org.uk)