



Robert Clack School of Science A Specialist College Newsletter

www.robert-clack.bardaglea.org.uk



Science



Maths & Computing



May 2009(2)

Science news

BTEC in Science – New for 2009!



Science

There will be a new course offered to our year 11s going into the 6th form – a BTEC qualification in Medical Sciences. It is aimed at students interested in jobs in science who do not, necessarily, plan to do a science degree at university. It will be an excellent course in preparing for the world of work. Here are some possible careers it could lead on to:

Biochemist	Crime Scene Investigator/Scenes of Crime Officer	Radiographer
Biologist	Environmental Scientist	Research Scientist
Biomedical Scientist	Food Scientist/Technologist	Nursing
Midwife	Forensic Scientist	Recycling Officer
Chemical Engineering Technician	Laboratory Technician	Microbiologist
Chemist	Medical Laboratory Assistant	Toxicologist
Clinical Scientist	Medical Physicist	Zoologist

An outline of the units is shown here:

Unit 1: Fundamentals of Science

Unit 2: Working in the Science Industry

Unit 3: Scientific Investigation

Unit 4: Scientific Practical Techniques

Unit 5: Perceptions of Science

Unit 6: Application of Numbers for Science Technicians

Unit 7: Mathematics for Science Technicians

Unit 11: Physiology of Human Body Systems

Unit 12: Physiology of Human Regulation and Reproduction

Unit 13: Biochemical Techniques

Unit 15: Microbiological Techniques

Unit 18: Genetics and Genetic Engineering

Unit 21: Biomedical Science Techniques

Unit 29: Physiological Investigations

If you'd like to know more about this, ask your science teacher and put it down as one of your options when you make your choices!

Engineering in Action: Marble runs for year 9s!



Engineering in action: Mr MacLeod and Miss Nicol's Year 9s design their marble run structures. Each had to design, construct, test and modify their structures before taking part in the final competition.

AS Biology Practical assessment II

AS biologists have completed their second practical assessment -this time investigating enzymes and rates of reactions. As you can see, it requires considerable care and attention to detail to collect the most reliable results. All passed with high marks.



It's time to revise!

As our year 10s, 11s, 12s and 13s approach their exams, here's a reprint of some help on how to prepare for them to give yourself the best chance of success.

Personal revision is absolutely essential to doing well in your exams. Here's a way you can organise your holidays to:

- 1) Revise really well and
- 2) Have a relaxing and fun holiday too

#1 – Eat Smart



During exam time, it is extra important to eat regularly and healthily. Some tips are:

- Drink plenty of water to keep hydrated
- Have a good breakfast – cereals, toast & bananas are awesome energy foods and turn your brain on and help you concentrate longer
- Cereal bars for breaktime – they release their energy slowly
- Fish for dinner – fish is thought to be good “brain food”, especially oily fish which are high in Omega-3 oils e.g. mackerel

#2 – A Revision Schedule

You have 9 days off school in the half-term holidays. That’s about 216 hours! That can seem like a long time and it’s easy to let days slip by without doing any quality work and without having any fun!

YOU CAN DO BOTH – GOOD WORK & HAVE FUN if you plan it.

Here’s how to do it:

1. Divide each day into 3 sections – am, pm and eve
2. Fill in what work you plan to do in that time and let NOTHING get in the way of it.
3. Plan to work 2 out of the 3 sessions per day & do something ENJOYABLE (Yes! Enjoyable!) in the other 1.
4. Plan some fun things to do in your free session.
5. No-one can work ALL DAY! Make sure nothing gets in the way of the fun things too.
6. Remember your brain needs a break – work for 25 minutes, then have 5 or 10 minutes break, then go back to it.
7. Lastly, eat properly during revision time – this plan has breakfast, lunch and dinner included, so no excuses!

Take a look at this example to help you plan your own:

		Morning 9am - 12.30pm		Afternoon 1.30pm - 5pm		Evening 7pm - 9.30pm
Monday	Breakfast	Science	Lunch	Maths	Dinner	Cinema

Tuesday		Football		Geography		Technology
Wednesday		English		See friends		History
Thursday		Science		Business		Circuit training
Friday		See Nan		French		Maths

In this example, the person has done nearly 50 hours of revision, been to the cinema, played football, seen friends, been to circuit training and seen their Nan before the weekend!! We've all heard the expression WORK HARD – PLAY HARD and it's so true.

Good luck with your revision over half term and study leave. Every hour counts and will be worth the effort.

Maths and Computing Specialism

Computer Literacy Course

This term saw the launch of the Computer Literacy Course for parents. This has proved to be very exciting with most of the class already passing the preliminary test. Soon the class will be covering the basic fundamentals of how to use a computer and spreadsheets.

Well done everyone for their hard work! I look forward to seeing you after the half term break.

Discount Software

RM are offering all students and their parents the opportunity to purchase discount software for use at home. Microsoft Office 2007 Plus, the package used in school, is currently on Sale for £44.03 rather than the RRP of £365.85 and Microsoft Vista Ultimate Upgrade is also available for the low price of £56.75 rather than the standard price of £249.99.

This is an excellent opportunity to extend pupils' learning beyond the classroom and enable them to complete computer based work from home. More information is available on the school Intranet.



Guidance for Parents

All students have been registered on to the maths revision website MyMaths.co.uk. This should help them to structure their revision and enable you to see how they are progressing.

To get to the materials you first need to log on to the site. Go to www.mymaths.co.uk and login at the top of the homepage.

Our school login is clack
Our school password is higher

Students may be directed to complete tasks by their teacher or encouraged to work through topics as they feel necessary. When you open an Online Homework or Online Worksheet you will be prompted for login details. If you use these the scores will be recorded once you have completed all the questions.

If no lessons are appearing then you have a Pop-Up Blocker installed. You **MUST** allow MyMaths.co.uk to use Pop-Ups.

There is a system of Traffic Lights for each of the Worksheets and Home works to indicate how successful students have been.

If a green light appears next to a topic, they have good skills in this area.
If an amber light appears they still have difficulties.

If a red light appears they need to go back and revisit the topic. They should ensure they see their class teacher for support.

Students can also see which questions they could and couldn't do, how many times they have attempted the worksheet and when they last tried it. You can help your son/daughter by encouraging them to visit the site and revise for their exams. If you have time, you might want to work through some of the topics with them. The lessons are clear and easy to follow.

An effective strategy is to pretend that you have forgotten how to do it and ask them to show you how. Putting them in the position of "teacher" is good for their confidence and gets them to talk about their thinking.

Students can see their maths teacher if they have any questions.

Mr Hylton

Jaguar Cars in Motion Maths Challenge

In February the school entered the Jaguar Cars in Motion Maths Challenge. Pupils met regularly after school in the CLC to build their own computer generated Formula One cars. Each car was individually built and designed by the pupils for a specific Formula One circuit. This was a very exciting process as an array of factors needed to be taken in to consideration. The angles and lengths of the track needed to be measured in order to calculate the amount of petrol required, the number of pit stops needed gauged and weather conditions had to be taken in to consideration. This is just a fraction of the

variables that the group had to calculate before they raced their cars against each other.

Eventually pupils were entered in to a National competition where their cars were raced against other schools. After the success of the knock out rounds, Robert Clack succeeded in getting through to the next round of the competition which was a semi finals round in the Australian Grand Prix. It was a tough course to negotiate with its very rough terrain and tight bends. The weather did not help either as the rain came and went and came and went . . .

Due to the weather many of the drivers were cornering wildly, and there were even some who aquaplaned across the circuit. This had to be taken into account for the final race with many different types of tyre changes and refuelling tactics.

Initially Victoria Rayment had taken the lead in this race as was expected from her previous performance in the last grand prix. However, the race was fiercely contested by the wily Luke Willcocks and Mr Saleem also pushed the boundaries of safety over precision, with the former taking pole position.

In taking pole position in the race Luke will be entered into the national competition semi final. Unfortunately we did not win the semi final against the other schools in the south east of England. However, there is always next year and hopefully with a whole year group attempting the course, it would give Clack a better chance of finding our future Button or Hamilton.

Mr Saleem

Sixth Form

The Sixth Form are now right in the middle of exams, with most students having already taken at least one. Coursework is also being completed and marked, with many students producing some truly professional and outstanding work. Congratulations are particularly due to Chelsea Chapman, Leah Frederiksen and Zoe Hill who have produced outstanding pieces of video coursework in Film and Media studies which have brought them to the attention of the Chairman of the Apple corporation and earned them places on a prestigious summer school.

Some parents have asked about study leave for sixth formers. Students do not have study leave from a specific date. Instead they keep going to a subject's lessons until they have had its exam; they can then stop attending for that subject only. As a result sixth formers will have a timetable that gets smaller and smaller until they have taken their last exam. Those studying subjects without exams will be released by their teacher when their coursework has finished.

All Year 12 students will return to school on Monday 15th June to attend lessons and enjoy a period of work experience. This period is compulsory for any student who wishes to stay on into Year 13, which over 90% of our students intend to do. Sixth Form's final day of study is Tuesday 14th July.

I'd like to thank all of our parents who have proved so supportive of the students and the school over the year.

Mr Rissbrook

Ski trip to Crans Montana, Switzerland:- 3rd – 11th April, 2009



To save embarrassment, no names have been included in the following report, which hopefully, gives a flavour of the trip and records some incidents that happened during the week.

41 students from year 9 and 10 departed with 5 staff on Friday evening on a marathon, 17 hour coach journey to Switzerland. The shortage of kitchen sinks in Dagenham over Easter was a result of many pupils taking theirs in the coach. Cargo holds were forced shut and after picking up two more unexpected travellers en route (more luggage) and a brief examination at HM Customs at Dover, we set sail for Calais. Contrary to plans and thanks to demonstrations taking place in Luxembourg, the drivers decided to travel through France, meaning that there was a notable lack of Euros at the comfort breaks. Thanks to the staff, who raided their bank accounts to provide the correct currency.

After many “are we there yet?”, we arrived in the Swiss Alps and found ourselves surrounded by lots of snow - relief all round. Rooms allocated on one corridor, toilets and showers close by and a very inviting balcony, which ran the whole length of the corridor and connected all the rooms. Pupils’ dream – teachers’ nightmare. Naturally, none of our pupils bothered to go out there. After early excursions to the showers, scantily dressed en route, it was suggested that parading down the corridors in towels might be a little inappropriate as there was a visiting school from Qatar on the same corridor, who may be embarrassed by exhibitionist behaviour. The only exposed flesh visible after this advice belonged to the visitors from Qatar, who half-wrapped themselves in their designer towels and raced us into the showers.

Public bus up to the ski lift. 70 people and skis in a space obviously meant for 20. All good for getting to know people though. Up on the slopes was fun.

“Who’s stupid idea was this? Getting dragged up a slope in a most undignified way, only to spend the next 10 minutes sliding down it again on my backside.” Handbags full of make-up, is not really the best idea, especially when your hands are full of ski poles and you can’t balance; neither is putting on your skis back to front as someone managed to do! After lots of patience and a few bruises everyone got sorted and by the third day everyone was up the mountain looking for ‘reds’ and ‘blacks’ to fall down. It took until the last day for someone to work out how to get a free helicopter ride off the mountain. Fortunately, the helmet did its job and protected the landscape from the impact of a Robert Clack head and no avalanches were reported. The Swiss medical team were super efficient and it took less than one hour from the fall to being declared injury free in the hospital.

I think £15000 is the going rate for the first-aid provided. Thank goodness for insurance.

Speaking of the high costs of things in Switzerland, it cannot go unmentioned that a certain member of staff, having gone through clothing lists endless times with the pupils, forgot to pack his underwear. Does anyone wish to purchase two, very expensive pairs of Swiss underpants - hardly used? Needless to say, this was not the same teacher, who got asked for age I.D. in the local supermarket, much to the delight of the pupils. Nor was it the member of staff who stole sweets from under the pupils' doors and sent coded messages back and forth when on corridor patrol.

Evenings were interesting. Torchlight walks round the lake; quizzes; a film no one liked; bingo and of course the ultimate disco, in which the school excelled.

An excellent week, which everyone really enjoyed. The pupils were great on the slopes, in the hotel and around the resort; a real credit to their parents, the school and themselves of course. Definitely worth another trip. Better start saving.

Mr Swallow

Enterprise Update

May 2009

Sports bursary

Ricky McFarlane, Daniel Curtis and Chris Stephens (Year 12 and on the Barking and Dagenham Business bursary programme) successfully passed the Level 2 Gym instructor course. This involved an intensive practical and theory assessment with months of preparation with the organisation Discovery Learning.

They are now fully qualified gym instructors and are eligible to work at any gym in the United Kingdom. This is a fantastic achievement and we wish them well in their employment endeavours.

Team Building Event

All bursary students from Business, Science and Sport together with around ten members of staff recently enjoyed a team building event at the prestigious Five Lakes Hotel, near Maldon, Essex.



This was an enjoyable day in which the students learned the importance of working in, and being part of a team. This consisted of a theory based session in the morning delivered by Philip Stanley from IMEC Partnership. After lunch, the delegates participated in an ‘It’s a Knockout’ competition against other teams. This gave everyone the opportunity to put what they had learned in the morning into practice in a light hearted but nonetheless competitive manner. The winning team - The Pirates was captained by none other than Mr Hylton and ably supported by Miss Stewart with five other students. Congratulations to them.

Credit must go to Gary Jarrett for co-ordination of the event.

Youth Philanthropy Initiative



As featured in a recent newsletter, around 80 Year 10 pupils took part in the Youth Philanthropy Initiative (YPI). The idea behind the programme was that students in small groups researched local charities and had to make a claim that the charity of their choice was worthy of financial support.

The final was held in the school hall in April with an excellent standard of presentations.

The winning group were Hayley Johnson and Shelby Osborne representing the Osborne Charity Partnership. Pleasingly they were awarded £3000 to donate to the charity. Pictured above are Shelby and Hayley with representatives from the Osborne Partnership and James Townsend from YPI.

Congratulations to not only the winning team but all who took part in the project. It is clear the students have gained a clearer appreciation of the issues facing local charities.

Phil Tierney
Enterprise Team

Aaron Gauthier

Gary Jarrett

Enterprise Education

Business Bursary

Nottingham University Trip

The business bursary students attended Nottingham University for an insight into business and university life. Students spent one night in halls of residence accommodation and met hundreds of students from all over the UK. Their timetable at Nottingham was jam packed and offered seminars and lectures on, the various university business courses that could be done, business management, setting up a business, communications, marketing and branding and how to increase UCAS points.

Students really enjoyed their visit and felt inspired to work hard to get to a university like Nottingham.

Sport Bursary

Loughborough University trip

Our Sport bursary students attended the prestigious Loughborough University on 26-27th March. The experience gave them an appreciation of what it is like to be at a leading sports university. The students received a tour of the campus in which they witnessed high class sport facilities. They also, had a seminar on psychology in sport and a fitness testing workout. Most of the students have left the trip with the motivation to try and get into a leading sports university.



Peterborough United Football Club trip

We recently attended Peterborough United FC who are currently sitting in second place in League One and look good for promotion. The trip was made possible through ex-Robert Clack Student Aaron McClean a striker at the club who is poised for future stardom.

While at the club our students watched a strength and condition session undertaken by the first team at the stadium London Road. We then went on to the impressive training ground facility where the students looked in on a training session undertaken by first team manager Darren Ferguson (son of Manchester United manager Sir Alex).



Robert Clack netballers bring home the silverware

The U16's netball team were crowned Champions of Essex on Wednesday April 29th having beaten Chelmer Valley High School - 27-20 in a thrilling final held at Gloucester Park in Basildon.

The victory is a culmination of five years commitment to the sport and the epitome of the season. Some 50 teams representing schools throughout Essex entered the knockout competition which began back in the autumn, at the start of the netball season. For Robert Clack to battle their way through to No. 1 spot highlights the dedication and skill of all the players.

Well done to Captain Rochelle, who led by example; Alex whose passion and drive (into the fence!) spurred on the team; Kirsty, who dominated the circle; Emma whose confidence blossomed; Nicole, whose calling confounded the opposition; Paris...one word, 'interceptions' - how many?!; Amanda, who was tireless in attack; Kike, queen of the 'double dodge'; and last, but not least, Sian, our silent threat.



Congratulations to all the team!

Miss Georgallides

Year 10 Netball Borough Champions

Congratulations once again to the year 10 netball team who have become Borough Champions for the fourth year running. They are all an absolute credit to the school and the team and I look forward to working with them again in year 11. The girls involved in the netball squads are:

Paige Saunders
Shanica Simmons
Paris Rhodes
Tia Howard
Amy Lucas
Amanda Ngonyama
Emma Light
Jodie Ashdown

Rebecca Rachdi
Rosie Graham
Shelby Osborne
Jasmine Darling
Georgie Cameron
Jessica Wallin
Sunnie Charles Haskins

Well done Girls

Miss Willson

Robert Clack Essex Champions!!!

Robert Clack year 7 Football team were crowned joint Essex champions after a full game and extra time could not separate them and Woodlands school from Basildon.

The final was held in glorious cup final weather at Barking Football Club, and whilst the warm temperatures was lovely for the bumper crowd that had come to support, it made the final even harder for the players.

The game was a tight edgy affair with little goal mouth action, but because of the occasion and the title at stake the game was no less exciting or thrilling for those watching.

The game eventually finished 0-0 and in keeping with the sporting schoolboy ethos of the competition the title was shared.

Proud Clack Captain Michael Rhodes held the Ken Aston Trophy aloft with his opposite number to cheers and applause from an appreciative crowd.

Clack team – Gokensel, Kanyowa, Carley, Goldstone, Parris, Rhodes (capt), Olukoga, Amir, Smith, Bradford, Fagg, Sendeke, Bessant, Abiola, Fook, Tarbard, Williams, Cacchio.



Girls swimming team

Congratulations to the girls swimming team who were triumphant this year at the Borough championships. The team swam their socks off (if they were wearing them!) and managed to receive a medal in every event from year 7 to 6th from. This in turn meant that we were overall girls' junior winners, intermediate winners and senior winners and overall winners. This is the first time we have won these since I was swimming for Robert Clack ten years ago! As you can see this is a great achievement and one that the school is very proud of.



Well done to the following:

Alex Malerich
Kirsty Deeble
Lauren Burke
Leigh-Ann Smith
Paige Kemp
Gemma Bailey
Jodie Brazier

Shiann Evans
Sunnie Charles Haskins
Katie Walker
Nancy Birdsley
Zoe Hill
Grace Cridland

Mrs Kirby

Tesco Vouchers for Schools

Tesco schools vouchers deadline for collection is Friday 19th June.

Lower school to Room 23 and upper school to any member of the ICT department.

A. Wilkes

Table Top Sale

The Robert Clack Association would like to thank all the Year 7 parents for their contributions towards the table top sale which was held in March.

We raised a grand total of £569.31.

School Uniform

All pupils are expected to be appropriately dressed in school uniform at all times. The school uniform for Years 7 to 11:

For Girls:

Black Blazer with school badge
Black tailored trousers (6-8" hem width) or

Black knee length skirt box pleated from the waist

White shirt with collar

School tie worn to waist length

Plain black or flesh coloured tights or white ankle length socks

Conventional flat black leather fully fitted shoes with fitting heel and toe (no 'fashion shoes' e.g. stiletto heels, platforms or ankle straps).

No Kickers, Timberland, Lacoste or trainers

V necked black jumper (optional)

For Boys:

Black Blazer with school badge

Black trousers

White cotton shirt with collar

School tie worn to waist length

V necked black jumper (optional)

Conventional black leather shoes.

No Kickers, Timberland, Lacoste or trainers

JEWELLERY, INCLUDING EARRINGS, IS NOT PERMITTED.

Jewellery should not be worn. It may be confiscated and kept in a safe place until collected by parents. The Governors reserve the right to send pupils home who are inappropriately dressed. This also applies to extremes of appearance cosmetically including for example make-up, false nails and unnatural hair extensions or dye.

The following items are also not allowed onto the school premises: chewing gum, cigarettes, lighters, matches, correction fluids, aerosols, mobile phones, pagers, laser pens and portable music devices including MP3/4 players and iPods. (The Governing Body allows all students in emergency circumstances to use the phone to contact home free of charge).

Medicine

A reminder to parents/guardians that if your child is on medication, this should be given to the school medical office who can then administer the medicine to your child and consequently instances of medicine being lost/not taken will be reduced. Many thanks for your cooperation.

Bicycles

A reminder to pupils that bicycles should not be brought to school. Also we have been informed by local residents living in the vicinity of the back entrance of the Green Lane site that they have been advised to lock the footpath which runs parallel to the area behind the lower school kitchens. Bicycles should not therefore be stored in this area. Any bikes in this area can be removed.

Dates for your diary

Mon 1 – Thurs 4 June	Year 7 Examinations
Mon 8 – Tue 9 June	Year 9 Examinations (Green Lane)
Wed 10 June	Year 7 Presentation Evening, 6.00pm, Green Lane
Wed 17 June	Year 8 Presentation Evening, 6.00pm, Green Lane



Holiday Dates

Fri 22 May	Break up for half term
Mon 1 June	Return to School
Thurs 16 July	Break up for summer
Thurs 3 September	Sixth form lessons commence
Fri 4 September	Start of term

