

# SCIENCE 'HEART' - APPLICATIONS OF SCIENCE, CAREERS AND THE 'GATSBY BENCHMARKS'



## BENCHMARK

### 1. STABLE CAREERS PRO-GRAMME

School and college should have an embedded programme of career education and guidance that is known and understood by pupils, parents, teachers and employers.

**Science- Miss Gibson - lead STEM teacher** in science to co-ordinate STEM displays, STEM activities in the classroom, extra-curricular STEM activities, experiences of employers and the workplace, delivery of relevant departmental CPD where appropriate.

### 2. LEARNING FROM CAREER AND LABOUR MARKET INFORMATION

Every pupil, and their parents, should have access to good quality information about future study options and labour market opportunities.

**Shell Bright Ideas Challenge** - students mirror work done by the Shell Scenarios team to solve real-world STEM problems.

**Sixth Form Open evening** - accurate and relevant information shared with pupils and parents about post-16 options in relation to career pathways, further education or training.

**Year 9 option evening** - accurate and relevant information shared with pupils and parents about progression pathways specific to science. Written and verbal information provided.

**Science Displays** - careers in science displays shown in the science department, relevant job opportunities and skill development in STEM subjects.

**Science learning activities** - pupils given opportunities to research careers of interest, progression pathways and develop career-based skills in and out of the classroom.

**Home Study** - STEM Twitter account has been created to share information with students and parents, STEM activities have been set to enrich home learning via Teams and Twitter, STEM newsletter has been sent out via Insight.

### 3. ADDRESSING THE NEEDS OF EACH STUDENT

Pupils have different career guidance needs at different stages. Opportunities for advice and support need to be tailored to the needs of each pupil. A school's careers programme should embed equality and diversity considerations throughout.

**Shell Bright Ideas Challenge** - the industry-led competition is delivered in a flexible and cross-curricular way with pupils using different skills and strengths to contribute to team success; pupils are able to contribute in an ability-appropriate manner.

**STAR Record** - records of pupils attending extracurricular activities are fed back to the office to be recorded on pupils star logs.

**Careers Appts** - all science staff support the attendance of pupils to appointments with the careers advisor with time out of lessons, discussions that arise from those meetings and support with missed work.

**Doddle** - progress for individual pupils in a range of skills in science, particularly HSW is communicated to parents and pupils and used to inform next steps.

**1-2-1 interviews** - members of the science team conduct 1-2-1 interviews and discuss careers suitable for their skills as part of this annual process.

**Options evening for Year 9** - opportunity to discuss appropriate science routes with parents and students in relation to career aspirations and abilities.

**Sixth form open evening** - opportunity to discuss appropriate post-16 options with students and parents based on career aspirations and pupil abilities.

**PDL** - many members of the science team are form tutors and deliver PDL sessions and form time activities in line with the whole-school careers programme.

**STEM careers activity** with Bentley liased for key stage 4

### 4 LINKING CURRICULUM LEARNING TO CAREERS

All teachers should link curriculum learning with careers. STEM subject teachers should highlight the relevance of STEM subjects for a wide range of future career paths.

**Cross curricular** The Science Department work with other departments around the school to link careers into lessons.  
**The science department are active in promoting science careers** with top @10 key employability skills@ posters, corridor and classroom displays highlighting potential careers and case studies from members of the science staff based on their own diverse experiences.  
**Forensics discussed as part of year 8 programme.** Lessons linked to work e.g. chromatography, inferred cameras, food testing, career focused starters and extensions.  
**Whole school LORIC initiatives** used to support career relevant skill development within the classroom.  
**Weekly KS3 science club** where students can develop career based investigative skills and enthusiasm for STEM subjects.  
**Programme of a wide range of lunchtime extracurricular events** for all year groups is ran e.g. dissections, food testing, firework technology with career relevance highlighted. Shell Bright Ideas challenge encourages pupils to use approaches relevant to the world of work.

#### 5 ENCOUNTERS WITH EMPLOYERS AND EMPLOYEES

Multiple opportunities to learn from employers about work, employment and the skills that are valued in the workplace.

**STEM speakers** - PDL activities include visiting speakers ensure that every year group experiences at least one meaningful encounter with an employer.  
**STEM links** - Local industry STEM ambassador is in regular contact with science about employer opportunities. Visiting speakers and trips out into industry are being planned annually for science

#### 6. EXPERIENCES OF WORK

Every pupil should have first-hand experiences of the workplace through work visits, work shadow-ing and/or work experience to help their exploration of career opportunities, and expand their networks.

**Open evening events** - pupils are recruited to lead activities, school tours, market the science department

**Interview panels** - pupils are recruited onto interview panels for science staff

**Pupils on work placements** - science staff support pupils who are absent from the classroom for work placements and university interviews with provision of work, additional sessions to facilitate pupil progress.

**In-class activities** - collaborative learning strategies are utilised in science lessons to give pupils the opportunity to work in different team roles and develop skills such as leadership, planning, organisation..

**STEM link team** - science, maths and tech STEM leads meet regularly with outside STEM advisor David Nellist to develop further opportunities for pupils to experience the workplace. Trips planned and TBC for Spring/Summer 2020 term.

#### 7 ENCOUNTERS WITH FURTHER AND HIGHER EDUCATION

All pupils should understand the full range of learning opportunities that are available to them. This includes both academic and vocational routes and learning in schools, colleges, universities and in the workplace.

**UCAS application support (applying for university)**- science staff support students in the selection of appropriate courses, the writing of personal and subject references and give advice on Science Degrees and careers

**Science staff** - members of the science team have experience of teaching at Further Education and Higher Education level in both vocational and academic courses within Malbank and from previous experience at other institutions and share their expertise with pupils.

**Open days** - students are supported and encouraged to attend FE and HE open days with science staff working with pupils to cover any missed work/learning experiences.

**Post-16 options evening** - science staff deliver relevant course information and advise pupils and parents on post-16 options

**PDL** - STEM subject speakers address whole year groups regularly in assembly

**Form time** - members of the science team delivered information and a quiz on apprenticeships during form time, including in STEM roles.

#### **8 PERSONAL GUIDANCE**

Every pupil should have opportunities for guidance interviews with a careers adviser, who could be internal (a member of school staff) or external, provided they are trained to an appropriate level. These should be available whenever significant study or career choices are being made. They should be expected for all pupils but should be timed to meet their individual needs.

**Referrals made by science staff** to the careers advisor where the need arises for individual students.

**Science leadership team** 1-2-1 interviews with KS4 pupils and discuss science and career routes.

**Science teachers** - all science teachers are subject specialists and can offer advice on careers and opportunities within their field