Careers, Employability and Enterprise Audit across the Curriculum

Curriculum area: Science _____ **Staff** **Science Department** _____ **Date 26/ 02/ 20**_____

Year group	**How does your subject contribute to the Careers, Employability and Enterprise curriculum?**	**What are the activities used?**	Developing yourself through careers, employability and enterprise education	Learning about careers and the world of work	Developing your career management, employability and enterprise skills
7	STEM careers require good theoretical knowledge which our curriculum provides in full Critical thinking is key Evidence based conclusions are also essential in many careers and this is what we promote Ecosystems (Fertilisation/ germination): Personalised with my parents working in Horticulture Genes → links to Rosalind Franklin influence in DNA model (highlighting gender bias and lack of opportunities for women in history of scientific discovery)	Planning experiments Good quality documentaries (BBC particularly) explore the potential for science careers Employment links within starters wherever possible. Displays related to careers.	1,2,3	9,4,5,6, 8	15

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8	Reactions – Links drawn to scientific researchers to identify separating samples using chromatography Forces – links drawn to mechanical engineers in constructing buildings at Battersea PowerStation	Calculations of forces and use of pulley systems to enable lifting materials.	1, 2, 3	9	15
9	Non/-communicable diseases – voicing links in careers to medical practitioners in working towards preventing, diagnosing and treating infectious and non-infectious diseases. Energy resources – voicing careers in growing field of developing wind-powered energy sources (mechanical and electrical engineering). Links made to European organisations constructing these.	Scenario based learning → acting as a GP in pathogen diagnosis or treatment using antibiotics. Presenting and debating arguments for and against non/-renewables to develop these transferrable skills to industry (persuasive/ negotiation/ presentation).	1, 2, 3	9, 4, 5	15
10	STEM careers require good theoretical knowledge which our curriculum provides in full Critical thinking is key Evidence based conclusions are also essential in many careers and this is what we promote	Exam questions which ask for implications of conclusions, ethical considerations and potential for business Planning practical's. More in depth explanation of job types within lessons alongside the national curriculum. For example discussing cardiology as a career pathway when covering the heart. Videos highlighting roles in aluminium extraction.	1,2,3	9,4,5	15

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	Electrolysis – links to careers in industry in obtaining pure metals from ores/ extraction Radioactivity – links to industry in nuclear energy and addressing future preferences for this as an energy source.	Articles highlighting Rolls Royce mini-nuclear reactors etc.			
11	Biodiversity and ecosystems – Careers in waste disposal, advocacy and change charities, greener energy and movement towards hybrid/ electric cars (Tesla), sustainable food production.	Presentations of impact of climate crisis on environment to develop skills Articles citing challenges and global concerns Videos to challenge opinions highlighting history of developed countries exploitation of own resources vs pressure on developing countries not to use theirs.	1, 2, 3	9, 4, 5	11, 17
Y12 and Y13	Health and Social Care → Health and social care is directly related to a range of career pathways these are explored on a lesson by lesson basis. Evidence based conclusions are also essential in many careers and this is what we promote BTEC Science → BTEC AS - Prepares pupils with practical skills to conduct scientific research. Reporting and analytical skills developed and transferable. Taught content – links drawn to career/ specialist fields: Biology – Researcher	Watch videos related to each of the career areas. Create care plans mirroring what is done within the industry. Scenario based – Provides pupils with a role of a school technician. Links to school technician field of work (personalised) and how scientific techniques would be conducted in hospitals, research laboratories etc (localised to London – GSK, St Thomas'..). Safe working practices.	1,2,3	9,4,5,6, 8	15, 14, 11

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	(Stem cells, Parkinson's etc), sports physiotherapist. Chemistry: Chemist, Lab technician. Physics: Mechanical or electrical engineer. Biology → Students learn about different careers related to biology from both a human biology and ecological sense. Students also gain understanding of labs and practical work. Chemistry→ Evidence based conclusions are also essential in many careers and this is what we promote Practical endorsement required for academic study of science at degree level and in some vocational science fields like forensic science Physics→ Physics students are trained to analyse evidence and handle equations. This way of Problem solving can be applied to many job roles, giving them the	Practical investigations are carried out by students who must be able to discuss and evaluate results. Deadlines, independence and other essential workplace skills are developed using long- and short-term deadlines. Students analyse data from patients in the work place and graphs from field work. Practical investigations are carried out by students who must be able to discuss and evaluate results. Deadlines, independence and other essential workplace skills are developed using long- and short-term deadlines. Students analyse data from patients in the work place and graphs from field work. STEM ambassadors, Physics and engineering related roadshows throughout the year e.g Battersea			

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	option of working in a range of industries. Problem solving skills are built into the heart of our curriculum One of the great benefits of studying physics is the employability and the wide range of potential career directions afterwards. To this end we have strong links with Alumni who have studied or studying physics/ who come in and discuss the opportunities available to them	powerstation/ Thames Sewer project / Crossrail Engineering roadshow Discussion of relevant applications of subjects throughout each topic Engineering employers doing fairs – e.g. the Royal Air Force The start of each topic – go through possible career options (proposed)			

The framework presents learning outcome statements for students across seventeen important areas of careers, employability and enterprise learning. These statements show progression from Key Stage 2 through to post-16 education.

Three Core Elements of Careers, Employability and Enterprise:

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Developing yourself through careers, employability and enterprise education	Learning about careers and the world of work	Developing your career management and employability skills
1. Self-awareness	4. Exploring careers and career development	10. Making the most of careers information, advice and guidance (CEIAG)
2. Self-determination	5. Investigating work and working life	11. Preparing for employability
3. Self-improvement as a learner	6. Understanding business and industry	12. Showing initiative and enterprise
	7. Investigating jobs and labour market information (LMI)	13. Developing personal financial capability
	8. Valuing equality, diversity and inclusion	14. Identifying choices and opportunities
	9. Learning about safe working practices and environments	15. Planning and deciding
		16. Handling applications and interviews
		17. Managing changes and transitions