Haringey's Draft STEM Operational Action Plan Autumn 2017 – Autumn 2020

Please note: this is a work in progress and will be added to and updated constantly

Summary Overview

Areas of Focus	Objectives	Quantitative Success Criteria
School and LA L+M of STEM	• Ensure a shared understanding of Haringey's STEM vision and objectives: schools, governors, parents, partners • Share and further develop local authority and school leadership systems for STEM	
Profile of STEM with pupils, parents and staff/ careers advice and guidance	• Raise the profile of STEM with pupils and parents • Raise the profile of STEM with teachers and TAs and support/ monitor staff voice to promote STEM	12 Haringey STEM events to be held annually (each hub X5, NLCs X6 and 1 central) Targets to be set from baseline survey data (school provision/ pupil and parent perceptions) by end of autumn 18 and for first evaluation in spring 19 % choosing STEM subjects at KS4/% of girls.
Pathways, Achievement and narrowing gaps for groups of pupils	• Increase the % choosing STEM subjects at KS4 and KS5 and the uptake by girls • Ensure post 16 pathways meet the needs of all pupils • Ensure a shared understanding by school leaders, governors, staff, pupils and parents of the value of ongoing maths study at post 16 and increase uptake • Raise standards where Haringey data shows underperformance, including by pupil groups (compare against national, London and Haringey relative performance by group)	**First evaluation in summer 2020:** -% choosing STEM subjects at KS4/ % of girls -% taking triple Sc at KS4 -% choosing STEM subject at KS5/ % of girls -% studying maths post 16 -Achievement targets tbc incl by group
Teacher CPD	• Develop and share teachers' STEM subject knowledge and increase the number of specialist teachers across Haringey	-X specialist teachers by X deadline -X working groups led by Teaching Schools
Curriculum Development/ Sharing resources/ careers advice and guidance	• Develop and share curriculum plans (skills/ challenge/ real + engaging contexts/ links to the world of work/ STEM links across subjects/pathways and careers advice and guidance	-X shared units of work (for each of prim + sec) that have been quality assured and include external provider support by X deadline

Haringey Diploma	• Develop a Haringey diploma which collates and rewards pupils' STEM experiences throughout their school life	-X% of primary schools achieve the Primary Science Award -X % of schools are making use of the diploma by X deadline -Target to be set to ensure gender balance
Transition Y6-Y7 and KS4 – KS5	• Develop STEM transition arrangements and activities between Y6+7 and KS4+5	-BME target pupils identified for ongoing transition support in secondary -X number of summer term events by X deadline
School, HE and business/industry partnerships Volunteers + opportunities in the world of work	• Develop and share partnerships and projects between primary and secondary/post 16 settings and with STEM business and industry and HE. • Develop and share partner support mechanisms (e.g. volunteering/ 1-1 or small group mentoring): governors, parents, businesses	
Pupils as ambassadors/ mentors	• Create mechanisms for pupils to act as STEM ambassadors and subject mentors across phases	-All post 16 settings to have pupils as mentors supporting other schools by end of 2019 -Target to be set (if data shows it is needed) to ensure gender balance
Enrichment: range/ inclusion	• Develop and share STEM enrichment opportunities including those that ensure the participation of all pupils and with a focus on real 'world of work' experiences (including personalised pathway visioning for targeted pupils)	-All schools monitor participation levels by end of 2020 including by group/gender.
Parental support and engagement	• Engage parents in support of school-based STEM projects / careers advice and guidance	

Short, Medium, Long Term Planning

Objectives	Milestones for 2018	Short term actions: spring 18 – end 18	Medium term obs: spring 19 – end 19	Long term obs: spring 20 – end 20
School and LA L+M of STEM	-Role descriptions in place -Surveys produced (provision and pupil and parent perception) and used for further planning -STEM SEF and planning tool produced	-Develop and send out STEM provision survey and use findings for action planning/ evaluation methodology -Establish NLC contacts list -Develop a first stage STEM governor job description and identify1-2 Leading STEM governors to support roll out -Identify a School STEM lead (cross phase), STEMCo in each NLC and clear role descriptions, incl for hubs. -Seek SG project funding from business and industry partners -Develop a 'starter for 10' best practice STEM SEF and planning tool for use in spring 19 -Develop a pupil and parent STEM perceptions survey to support planning + evaluation methodology		
Profile of STEM with pupils, parents and staff	-STEM career doc in place -Borough wide event held	-Develop a list of innovative and exciting STEM careers with subject links + share -Plan for a borough-wide school STEM Showcase event to take place in spring 19 and to include a competitive element (to be an annual event)	-Establish school based, cross-subject STEM working group(s) -STEM showcase event spring 19	
Pathways , Achievement and narrowing gaps for groups of pupils incl girls	-Quantitative success criteria/targets established -School Improvement Advisor data template and reports revised to include entry data by group, incl for girls. -School Improvement Advisor visit programme includes a focus on STEM/girls in STEM			

Teacher CPD	-Training programme established	-Establish a number of CPD events to be delivered over year one by STEM hubs to primary and secondary STEM subject leads/ teachers -Identify 2 CPD events for each of primary and secondary to be delivered by external partners over year one -Draft plans for a borough wide CPD programme for years 2+3		
Curriculum Development/ sharing Resources	-Audit tool produced -Website produced -Target set for number of SoWs to be on website -STEM resource list produced	-Develop and maintain a STEM website/resources and agree QA mechanism. -Develop a basic STEM resourcing list + bid for funding -Subject to funding, establish some packages of ready to go transportable resources	-Carry out a mapping exercise to identify STEM links + projects across the curriculum (thematic/project based approaches). Prim + sec maps. -Produce a resourcing plan for packages for practicals (primary)	
Haringey Diploma	-Methodology agreed -Increased % of primaries with the Primary Science Award	- Hold a consultation on methodology: HT forum, NLCs, Expert Panel	-agree methodology by end of 19	-implementation
Transition Y6-Y7 and KS4 – KS5	Target pupils identified	- Link in with BME steering group to support transition for targeted pupils, using STEM as motivational strategy	-Establish STEM transition projects for summer term 2019, including summer schools (for Y6)	
School, HE and business/industry partnerships Volunteers + opportunities in the world of work	-Hub outreach events held -NLC events held -Partnership contact directories in place and gaps identified	-Plan for secondary hubs outreach work with pupils over the next 2 terms. -Establish a directory of school projects + contact details and one for business/industry (see GCA's) -Identify a local authority officer as a central contact for careers -Establish a STEM event in each NLC	- Complete partnership directories ensuring gaps are addressed	
Pupils as ambassadors/ mentors	Methodology agreed	-Agree methodology for 6th form student outreach support using existing practice	-implement 6th form student outreach support by all post 16 settings	

Enrichment: range/ inclusion	Success criteria/ targets established from provision survey		-Ensure all schools have access to external provider support for an enrichment event (post 16 mentors, hubs, other schools or business and industry)	
Parental support and engagement				