FINAL (23 January 2018)

Funding Proposal - 'Technologies Across Learning'

Question	*Response*
Applicant contact details	Dr WJ Dorman (bruntsfieldcomputing@gmail.com; 0131-555 4401) Miss R Carney (rosalyn.carney@bruntsfield.edin.sch.uk)
Money requested	**£1160** Break-down £500 – professional services from Kate Farrell who operates a specialist consultancy focusing on ICT education in schools: • to conduct two workshop for class teachers covering visual coding in the Scratch environment and fundamental coding concepts. • to make written recommendations with respect to next steps in ICT education at Bruntsfield. £510 – purchase of programmable equipment for using in coding lessons. e.g. • Meccanoid G16 Meccano £169.99 http://www.amazon.co.uk/dp/B00TY40EKO/ref=nosim?tag=myc0e-21 • Lego Education 'We Do' Starter Kit £136.99 http://www.amazon.co.uk/dp/B01A9A9XLW/ref=nosim?tag=myc0e-21 • Ozobot (perhaps more than one) £50.00 each https://www.amazon.co.uk/Ozobot-Bit-2-0-Crystal-White/dp/B00ZYUFPRO/ref=nosim?tag=myc0e-21 £150 – evaluation & any miscellaneous costs: • Honorarium and/or lunch for evaluator(s).
Application title	Parent Council Support to Technologies Across Learning
Application Context	Since 2016 the Parent Council has run a now very popular after-school Computing club with children in the P2 – P7 year groups doing a variety of ICT and coding projects (some quite advanced). The Parent Council should now ensure that opportunities are more widely available within the School. The most effective way of doing so is through the provision of staff training. The School is making a systematic effort to expand the diversity of instructional resources for the delivery of ICT education. Current initiatives include the Sumdog application and ICT workshop to be delivered by the Barefoot Computing Group in early 2018. The workshop will be run by a Barefoot expert volunteer who will guide teachers through using the Barefoot resources and how they can be used to teach their pupils computer science. this will be a voluntary session but there has already been significant interest. The proposed coding workshops described here will support this effort. Specifically, it will enable class teachers and learning assistants: • to make best use of the already available Scratch app. • to meet curriculum benchmarks in computational thinking. Looking forward, this training will also set the stage for subsequent instruction in more advanced coding environments necessary to prepare pupils in the older year groups for the ICT education underway at the high-school level.

Who will benefit from this initiative? Is it relevant to specific year groups or interest groups only?	Bruntsfield pupils will benefit across year groups (P1 – P7). Training will be provided to all class teachers, and designed to allow them to deliver technologies lesson content appropriate to their year groups with greater awareness, facility and confidence. Class teachers will also benefit from the professional development to be gained in this significant curriculum area.
Will the initiative progress and provide the opportunity for further development?	Yes, this initiative is intended as the first step in the Parent Council's funding of ICT training for class teachers and learning assistants. Both Kate Farrell and the external evaluator(s) will be asked to provide written recommendations with respect to future directions in staff training and curriculum development.
Who will oversee the initiative?	Dr WJ Dorman (representing the Parent Council) and the Acting Principal Teacher Miss R Carney, will be responsible for project implementation and evaluation. They will provide the Parent Council with: • a full report on the results of the project. • copies of the reports submitted by Kate Farrell & the outside evaluator(s).
Who will run the initiative day to day?	Miss R Carney will be the point of contact for all practical and logistical details with respect to the delivery of the workshop sessions, the purchase of specialist equipment and the subsequent project evaluation. She will coordinate, as appropriate, with Mrs Ingrid Ramsay (the School Resources Manager) whose remit includes the ICT Suite and ICT resources.
Who will evaluate the initiative?	The proposal includes funding for one or more external evaluators: • To meet with class teachers to assess the utility and applicability of the training provided. • To meet with pupils to gather their views on the resulting lessons delivered as the result of the training provided. • To make recommendations about the future direction of ICT training for staff. Potential evaluators include a current school parent and/or a former Bruntsfield teacher with professional interests in ICT education, who will not otherwise be associated with the project.
Outline how you will evaluate the benefit	Potential evaluation criteria include: • Do teachers believe that the training has enable them to deliver a more diverse range of ICT lessons? • Do teachers believe they can explore more of the benchmarks within Technology curriculum? • Do children find the resulting lessons engaging and fun? • Do children feel encouraged to pursue coding and related activities in their free time, at home or in the after-school Computing club?
Payment & beneficiary details	The principal beneficiary of project funding is Kate Farrell who has over 15 years' experience working in education and has worked in Higher, Further and Secondary education as well as in special schools. She operates a well regarded education consultancy focusing on ICT education within schools. Miss R Carney attended her course a number of years ago which looked at the use of Programming language and explored the new Technology Experiences and Outcomes. In March 2017 Benchmarks were published to further unpick these outcomes and new guidelines include detailed suggestions of how to deliver this in school. The Digital Learning team in Edinburgh have given some suggestions of CPD events and Miss Carney also attended a Computational Thinking Course in June 2017 which suggested resources to help with this (as described previously).

Need for further financial support?	In the short term, this funding request is self-contained and will not have any direct or immediate follow-on costs. The School will take responsibility for the renewal and/or replacement of any equipment purchased. In the longer term, follow-on coding workshops in Scratch and computational thinking will be needed to reinforce and refresh staff skills as well as for training newly arrived teachers. In addition, consolidated staff proficiency in these areas will create the conditions of possibility for subsequent training in more advanced coding tools.
Curriculum alignment	Technologies
School Management Team Support?	The School management team is committed to the progressive development of ICT instruction. The head teacher has been personally very supportive of the project.
Practical aspects of delivery (e.g. fit with the school day)	The workshops would be delivered outwith normal school hours, for example as part of routine staff CPD, and would thus not have any broader scheduling implications.
Further details with respect to: a) Inclusive b) Enduring c) Progressive d) Curriculum alignment	a) *Inclusive*: training will be offered to all teachers from P1-P7 to enable year-group appropriate ICT instruction across the School. In her capacity as Acting Principal teacher, Miss Carney would visit each class to deliver a model lesson based on the workshops, or support the class teacher's delivery of such a lesson. b) *Enduring*: Staff capacity building is the most sustainable means of delivering a diverse programme of ICT instruction within the School. As staff gain increasing fluency and confidence in using the ICT tools available within the School, they will be able to take the initiative in using them to meet Technologies and other curriculum benchmarks. c) *Progressive*: The proposed staff training builds on several initiatives already underway within the School (e.g. Sumdog and the upcoming Barefoot Computing workshop) as well as an existing level of staff familiarity with the Scratch environment. In addition to delivering training in the Scratch environment and computational thinking, such instruction is a necessary precursor to capacity building with respect to typed coding languages such as Python or HTML and more advanced projects. d) *Curriculum alignment*: The project aligns with the Technologies curriculum. In particular, there is a section of the Benchmarks called 'Computing Science' which develops skills in computational thinking and which requires pupils to design, build and test computing solutions.
Signed & dated	WJ Dorman (23 January 2018) R Carney (23 January 2018