**ACTION PLAN – Explore Programme**

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| **ORGANISATION**  Creative Spark is a not-for profit social enterprise who provides a place to learn. It offers mentoring and training programmes in creative skills, entrepreneurship, innovation and creativity. We seek to raise the level of educational benefits to the community by developing accredited programmes with local educational institutions and to increase the level of participation in STEAM outreach programmes by schools and community groups.  We aim to develop the local cultural and creative sector and activate culture and creativity in the community. Today’s Youth will be tomorrow’s Professionals and we seek to develop impactful training programmes for young people to ensure we have a high quality of entrepreneurs going into the future. Our mission is to deliver diverse programmes that reach and activate cultural and creative entrepreneurial people in our community by building capacity and staying ahead of requirements for successful and innovative entrepreneurship.  Since 2012 Creative Spark voluntary Board of Directors and a team of experienced professionals, with support from funders and stakeholders, work to achieve our vision. By 2030, one job out of two will have disappeared, and 60% of jobs that will be performed do not exist yet. We want to be a key driver ensuring that our region is prepared.  Creative Spark aims to advance education and benefit the community and wider region through providing opportunities to improve core skills, aid learning processes, raise confidence and self-esteem, key competences for lifelong learning.  Our vision is to provide a collaborative environment where learners, educators, innovators, start-ups, SMEs, creative industries and the local community can meet and exchange ideas, knowledge and best practice – to provide economic opportunity and development across our region. |
| **OBJECTIVE**  The Enterprise FabLab @ Creative Spark has a defined ambition to stimulate Enterprise, Creativity, Innovation and Education in the North-East region. A FabLab is a place to create, to learn, to mentor, to invent, to play: a place for learning and innovation. A central location which provides access to the environment, the skills, the materials and the advanced technology to allow anyone anywhere to make (almost) anything.  FIRST® LEGO® League Explore is a non-competitive, hands-on STEAM program geared toward children from 2nd to 5th class. It is an accessible, innovative 10-week program that motivates young people to pursue education and career opportunities in science, technology, engineering, arts and math (STEAM), while building self-confidence, knowledge, and life skills.  Each year, FIRST® LEGO® League Explore programme presents a new and exciting Challenge to ignite creativity. Children, in teams of up to six, begin the exploration of a real-world theme using the LEGO® Education sets. As a group, they investigate a challenge related to the theme and design a solution. As they work on their solution and build a team model, they learn basic engineering, programming and coding skills, which results in a LEGO® model that moves and is interactive using sensors.  STEAM Education & outreach is fundamental to the FabLab project and seeks to invite, young and old, to explore, engage and upskill in Science, Technology, Engineering, Arts and Maths. By involving people as early as possible in STEAM we can inspire future generations to develop the competences needed to thrive and shape our ever-changing world and to spark excitement and enthusiasm in STEAM careers in the North East.  With support from Change X, we seek to achieve equality of learning and access to STEAM education at the primary school level. Globally there is a deficit of graduates in Science, Technology, Engineering and Mathematics (STEM) subjects and a disjointed approach across Europe to Science, Technology, Engineering, Arts and Maths (STEAM) STEAM education.  This project will enable us to broaden the participation of an underrepresented and educationally disadvantaged group in STEM by focusing on reaching, Delivering Equality of Opportunities in Schools (DEIS) schools or schools with low engagement in STEM in the North East region.  The Spike Kit will be shared for the first 6 weeks the kit is in the school between 4 classes. Each day the children build their models and break them apart and put pieces back in the kit. The final 6 weeks the kits will remain in 5th class so the children will have time to complete the challenge and design their model and complete the coding. Their model will be tested, modified, and rebuilt numerous times before the final model is complete, which remains built until the celebration event is over. |
| **TIMELINE**  **DEIS School 1:** September – December 10 - 12 weeks (120 children) (15 full weeks available)  Celebration Event – December  **DEIS School 2:** January – May 10 weeks (120 children) (13 full weeks available)  Celebration Event – May  **Community Group 1**: June – August 10 weeks (30 children)  Celebration Event – August |
| **ENGAGEMENT PER SCHOOL**   1. 2ND CLASS – Tuesday – 1.5 hours p/w 4 weeks – Unit 1 (7 models) 2. 3RD CLASS – Wednesday – 1.5 hours p/w 6 weeks – Units 1-2 (14 models) 3. 4TH CLASS – Thursday – 3 hours per week 6 weeks – Unit 1-4 (24 models) 4. 5TH CLASS – Friday – 3 hours per week 12 weeks – Unit 1-5 (42 models) + Explore Challenge   Unit 1 “Great Adventures” Unit 2 “Amazing Amusement Park”  Unit 3 “Happy Traveller” Unit 4 “Crazy Carnival Games”  Unit 5 “Quirky Creations” “Explore Challenge” Lesson 1, 2, 3 |
| **CELEBRATION EVENT**  2nd - 4th class will work on the Spike Essentials kit and will be able to take part in the challenge in 5th class.  5th Class Students will have 6 weeks to work on the Explore Theme Challenge. Teams document their work in an Engineering Notebook and share their journey through a Team Poster. Teams will showcase their work at a Celebration Event in the Enterprise FabLab @ Creative Spark, Dundalk by explaining what they have learned about the real-world problem and the reasons behind the models they have built and coded. The Celebration Event boosts children confidence and is a celebration of their amazing achievements.  We will invite parents to the celebration event so they can see first hand the impact STEAM has on their children and fully understand why their teachers are letting their children play with LEGO at school.  Each child in 5th Class will be awarded a medal in recognition of completing the challenge but also in acknowledgement of their effort and learning in the STEAM sector. |