

Establishment	Bun-sgoil Bhogha Mòr
Area	MAKI
Session	2019-20

OCTF – KEY OBJECTIVE 1 - Raise Educational Attainment and Achievement for all	
NIF Priority: Closing the attainment gap between the most and least disadvantaged children.	Quality Indicator: HGIOS 3.2
Achieve STEM Nation Award – Continue the collegiate approach to STEM across the Islay and Jura Cluster, within individual schools and continue partnerships with businesses and parents.	
<p>Maggie Harrison (PEPS) and Rachel MacCaskill (BPS) worked together to develop a series of STEM Homelink bags for all the cluster schools. A total of 71 bags were put together from Early to Second Level, trying to cover all curriculum organisers. (See Phase 1 Bags in both S&Q Reports)</p> <p>Presented Homelink bags at CPD event for staff. Feedback from staff was all positive.</p> <p>Successful application for Kickstart Funding for British Science Week to supplement the Homelink Bags in Port Ellen. Awarded £300, resulted in a further 20 bags being made, with enough materials for a few more. We have a baseline and will measure impact over next year.- See Baseline data in S&Q</p> <p>Science Day organised and held for parents during National Science and Engineering Week. Launch of STEM Homelink bags. Positive response to the Open afternoon and the STEM Homelink Bags. (See screenshot of feedback in S&Q)</p> <p>Port Ellen achieved Rolls-Royce – Eden Award in November 2018</p> <p>Both Schools Participated in the Primary Science Education Conference, Edinburgh in June 2019. Presenting learning on marine plastics. This project incorporated topical science, maths and technologies (STEM) and was used to moderate learning in these subject areas in PEPS and BPS.</p> <p>The STEM team at Education Scotland are currently seeking expressions of interest from establishments that would be interested in participating in the Scottish STEM Nation Award pilot. We have been asked for our support to take part in the pilot – this will include early learning and childcare (ELC) in all 3 settings PE, BPS, BPSGM.</p>	

There are 5 Elements to achieving validation and through evaluation we feel secure in both schools that we can evidence this as we have already started our journey. The 5 elements are:

- Leadership in STEM
- STEM family learning
- Employability and STEM partnership working
- STEM curriculum and learner pathways
- Equity and equality in STEM

This would be a year-long process, although matching what we have already been doing with the criteria suggests that we are very close.

Outline your improvement activity/intervention

Here are our Aims:

1. To increase ELC staff's confidence in teaching science as part of a novel study.

Outline: SSERC funding will be used to create a 'Science through Stories' box for each school within the cluster. Each box will contain one book with all the associated science activities. Resources for the science activities will also be included.

Next Steps:

- To purchase the resources required.
- To hold a CPD session for all Early years practitioners to introduce the science through stories boxes. We will use this as an opportunity to demonstrate some of the science activities.

To measure impact:

All staff will complete a questionnaire through Google Forms to record their confidence levels of teaching science through a novel study prior to and following the cpd session

2. To increase parental involvement and confidence with numeracy.

Outline: Numeracy funding will be used to create numeracy homelink bags, these will be handed out to all ELC parents over the year.

Next Steps:

- To secure funding
- To Create maths bags
- To organise a maths open afternoon for parents and young children
- SEAL will continue to be used from P1-P4 and will be used as a support tool for children who have support needs in numeracy from P5-P7.

Measure Impact

Parents would fill out an electronic form to record their confidence within numeracy and participating in the numeracy activities at home. Following their participation with the maths bags, parents will fill in a second electronic form. We will therefore be able to see the impact that the open afternoon and the maths bags have had on parent's confidence.

3. Incorporate more STEM into ELCC.

Next Steps:

- To link STEM to Outdoor Learning, – See priority 3
- Teacher input to mentor and train staff to create a STEM environment
- To support practitioners with planning progressive pathways that align with the benchmarks
- To involve parents and create family learning opportunities
- To augment resources to support STEM in ELCC

Measure Impact

Use of surveys, baselines and questionnaires to gather data and measure impact.

- We aim to deliver **excellent** STEM learning so that our young people are ready to be part of Scotland's workforce
- We aim to close **equity** gaps in participation and attainment in STEM so that everyone has the opportunity to fulfil their potential and contribute to Scotland's economic prosperity;
- We aim to **inspire our** children and young people to study STEM and to continue their studies to obtain more specialist skills – **this links to Priority 6** , Digital CLPL
- We aim to **connect** STEM education with links across the curriculum and with employability.

Who is/are responsible for leading this?	Timescale(s)
Maggie Harrison – Port Ellen Rachael MacAskill - Bowmore	One Year – from June 2019- June 2020
What actually happened? What improvement(s) were achieved? How do you know? What evidence do you have?	
This will be completed within the parameters of the timescale(s)	
Next Steps	

OCTF – KO6 – Strengthen Leadership at all levels

NIF Priority: Improvement in employability skills and sustained positive school leaver destinations for all young people.

Quality Indicator: 1.3
Implementing improvement and change

Action 1 – Develop the Islay and Jura Digital Strategy

Primary schools surveys have identified that there are deficiencies in staff digital skills across the cluster. Most staff indicated they were between 1 and 3 on a 5-point confidence scale in the following areas;

- integrating digital technology into the curriculum (84%),
- teaching digital literacy (77%),
- teaching computer science outcomes (84%) and
- internet safety (55%).

After identification of this need Jo Clark had delivered a series of digital CPD twilights this session for primary staff , who are now more confident in several areas.

All said they would like to continue with the training, but that modelling and team teaching would be a more effective methodology.

There has currently been no training aimed at early years staff.

Across the five primaries there are totally different levels of skills among practitioners and professional support really needs to be tailored; these differences in levels of capability and confidence among practitioners are reflected in the levels of confidence and expertise seen in students going to High School from the different primaries at transition.

Specific Focused Targets are;

- TIME WITH P7 TEACHERS TO TEACH TEAMS
- APPLICATION FOR DIGITAL XTRA FUNDING
- RUN AFTER SCHOOL CLUB
- ORGANISE TRIP
- ORGANISE DIGITAL TRANSITION DAY (TO INCLUDE INTERNET SAFETY?)
- P7 PUPILS RECORD OVER YEAR IN THEIR PROFILE ON TEAMS
- CREATE DIGITAL PASSPORT
- TO IMPLEMENT THE USE OF SEESAW FOR PUPIL PROFILING ACROSS BPS/PEPS
- **SUCCESSFUL APPLICATION FOR THE LEADERSHIP AND COLLEGIATE PROFESSIONAL LEARNING FUND – INNOVATION ISLAY**

Outline your improvement activity/intervention

Outline of Plan

- Apply for Digital Xtra funding, a joint primary and High School bid. Use to purchase materials to run after school club and transition workshops for P6/7 and High School pupils following on from Robotics and using computer skills to design and make products. Run in conjunction with Guides, Scouts, Cyber café.
- Apply for funding to run a trip for interested students to see product design/computer science in industry on mainland.
- Hold a P7 transition day working with design and manufacture students where use digital skills/ robotics to design build products that are useful to society - may include CAD and 3D printing.
- Organise a digital transition profile for all P7 children through Microsoft teams, ensuring children have built digital skills before High School and have provided information that can be shared with teachers/tutors before going up. Children can also use the group as a basis for joint work and communication using chat/meet facility. Will include digital passport, personal swag, examples of work from curricular areas such as English essays, maths work, science videos, art work. Can include a collaboration section that lists worries about High School. Can arrange meets with S1 pupils from school to discuss worries.
- Staff to be trained in digital profile in term 1, also need to produce digital skills passport for children to fill in.
- Concerned about internet safety and cyber resilience. Would like to organise experts to come over to island and deliver workshops for parents and pupils on how to stay safe/ report issues/ deal with bullying etc. Have a day session looking at different aspects possible, morning for students, afternoon for parents.
- Update digital strategy at end of year.
- Port Ellen and Bowmore trialling use of Seesaw for digital profiles in the primary school.
- **Bowmore Primary Aim to achieve the Digital Schools Award** regardless of the success of the CLPL application – see below

If the application for the Leadership and collegiate professional Learning Fund is successful the plan is as follows :

- The main cost of the project will be funding to release teachers: Russell Pollack 0.5 and Jo Clark 0.2. Jo will be responsible for working with early years staff and first level teachers on developing their digital teaching. Russell will work with second level and high School staff. Both will be responsible for joint planning of events for students, but Russell will take on more of the organisational role as many will be held at High School.

- August 2019: Russell and Jo meet to plan the project in detail; create impact start and end surveys, identify STEM alumni, contact STEM industry partners, order resources, prepare presentation, identify key digital events and competitions over year.
- August 2019: Inservice day agree dates and times with cluster heads as part of the Islay and Jura digital strategy for the year. Present project to teachers and carry out survey of current skills level and individual areas for improvement.
- August 2019: Work with Talc, Argyll Digital Arts initiative on creative installation for Island wide Gaelfest project. Schools work together to record Gaelic songs from Islay Songbook and create art that will play the recordings when touched; shared with community as part of Gaelfest art exhibition. Highlight opportunity for High School Students to work on placement with Talc.
- August/September 2019: Meet with each school interested in Digital Schools Award and work through auditing process. Use this to identify key areas and key staff to take on areas to develop. Meet with individual teachers to plan modelled lessons and team teaching.
- September: Hold training for running after school Robotics clubs for teachers and community groups.
- September: Apply for Digital Xtra funding for more robotics and other key digital resources to carry out project. Attend SLF/ Edtech convention
- September 2019: 2 moderation meetings- Jo with early first level teachers and Russell with second third level. Meet and joint plan progression of learning for first digital skills based IDL to with links to world of work, sustainability and a global focus.
- September 2019: Begin visiting classes to model use of digital technology and suggest ways to integrate- round 1 teachers get two visits: 1. Identifying areas to develop and agreeing actions 2. Modelling and team teaching of skills in a class with Experts. Final evaluation takes place on an inservice day in groups when share experiences. Carry on with different practitioners throughout the year. Measure impact with before and after survey.
- September 2019: Plan students digital experiences:
 - Digital Innovations Fair: To be held in January for P67-High school. Invite local businesses, universities, wider industries. Record for future use mini interview clips with those taking part.
 - Plan internet safety and cyber resilience workshops for parents/ children. Have children run digital skills workshops for parents and local community on same day.
 - Early level transition Challenge:- Design and make a robot to help the local community-farmers, fishermen etc. Children get to explore robotics in joint sessions with P1 then come up with their own idea and build a robot. Visits from people in community who use digital technology in world around them and female High School STEM ambassadors.
 - Second Level Transition Challenge: P67 & S1 work in mixed teams to create actual digital solution and product to help local community- distilleries, farms, fishermen, NHS etc Use product design/engineering plans and micro;bits and App design to create a business that produces a working prototype. Takes place over 2 days.
 - Plan P67 visit to Celebration of Science in June and High School visits to Digital Industries and courses on mainland
- September/October 2019: Meet with Headteachers to train in use of Digital tools to improve workflow.
- October 2019: Organise Alumni Girls group to work with teachers to run after school clubs in primaries and secondary. Find best times for them to manage with university/apprenticeships/ work.
- October 2019: Work on creating a TEAMS group on GLOW that houses bank of teaching resources for cluster digital technology and has a space for practitioners to share their successes and how have used in class. Include existing examples of work from own practice.
- November 2019: Review modelling and team teaching of integration of digital skills in curriculum. Create resources for discrete progression of digital experiences and outcomes programs, trial in classes.
- November 2019- Internet safety and digital skills event High School for all parents on Island.
- November 2019- Twilight on skills to reduce workload/ assistive technologies in class
- January 2020- Digital careers fair
- January- March 2020- Run after school Resilient Robotics Club.
- January- March 2020- transition events
- May inservice 2020- Final moderation of teaching and learning, post project evaluation, view on future.

Progress and Improvement will be shown through feedback from staff, children and parents – the most effective way to do this is by providing online surveys and questionnaires at key stages throughout the year.

- Baseline – August
- December – midpoint
- May 2020

Impact

- By upskilling practitioners, we will create a cluster where all children receive an equity of digital experiences as they progress through school.
- Using local digital leaders rather than outside trainers we will have a sustainable solution to the problem of equipping practitioners to keep up with everchanging digital demand;
- we will be able to maintain digital capacity by reacting to local changes as and when they happen as we will have digital leaders in all cluster schools.
- Learners will be engaged in a wider and more robust range of learning opportunities with skills integrated across the curriculum, but also ensuring skills are developed progressively.
- We will use digital surveys to measure impact with teachers, students, parents and partners, using a before and after comparison where appropriate. - see above

Achieving excellence and equity

- We will address a gender imbalance in uptake of STEM subjects by engaging former female students who now study/work in STEM to come into school and talk about their experiences and help run digital and STEM related clubs.
- We will ask for representatives at the career fair to include women where possible.
- We will include examples for women in STEM in our teaching and projects where resources will allow.
- This renewed focus on Digital skills will improve the Island as a whole, potentially making it a more attractive location for companies to have high skilled employment.
- There is clear evidence that digital technology approaches are more beneficial for writing and mathematics practice than spelling and problem solving, and there is some evidence that they are more effective with young learners.

How will it close the attainment gap?

Research has shown that the Attainment Gap can be reduced up to **4 months**

Who is/are responsible for leading this?	Timescale(s)
Jo Clark – Shared PT BPS/PEP Russell Pollock - IHS	August 2019- June 2020
What actually happened? How do you know? What evidence do you have?	
This will be completed within the parameters of the timescale(s)	
Next Steps	