



# EXPLORERS ENGAGEMENT & IMPACT

## Report 2020



*Foras na Mara*  
*Marine Institute*

The Explorers Education Programme is funded by the Marine Institute

The Marine Institute's Explorers Education Programme engages with primary schools, teachers, children and the education network, creating marine leaders and ocean champions in Ireland.

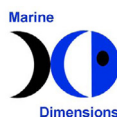
The Explorers Education Programme is funded by the Marine Institute, the state agency for marine research and development.

The Camden Education Trust are responsible for the strategic development and management of the Programme.

The delivery of the Explorers Education Programme is further supported by Galway Atlantaquaria who provide support services to the management and outreach teams. The Explorers outreach and education is facilitated by a number of centres throughout Ireland including: Leave No Trace - Ireland, Galway Atlantaquaria, Loophead Summer School, Sea Synergy Marine Awareness Centre, Old Cork Waterworks Experience, Oceanics Surf School, and Marine Dimensions.



*Foras na Mara*  
*Marine Institute*



# EXPLORERS STRATEGIC

## *Priorities & Goals*

**EDUCATE** and **INSPIRE** primary school children, teachers, and the education network in Ireland to adopt the ocean literacy concepts and principles, as well as support the engagement of the UN Sustainable Development Goals.

**COORDINATE** professional development training and workshops for teachers, trainee teachers, and outreach teams, with the development of their marine literacy skills, promoting the use of marine content in line with the national curriculum.

**DEVELOP** education materials and resources that can be used to teach children about the value of Ireland's marine resource, the importance of our ocean and marine heritage, through STEM and STEAM projects, cross-curricular modules, lesson plans, and activities in the classroom and on the seashore.

**PROMOTE** ocean literacy and marine outreach activities with local communities, educators and influencers through events and media, so as to create dialogue and engagement about our ocean.

# EXPLORERS OUTREACH IN SCHOOLS

## *Annual Statistics*

The Explorers Education Programme delivers a range of marine themed modules to classes of children in counties Donegal, Sligo, Mayo, Galway, Clare, Kerry, Cork, Waterford, and Dublin. As part of the delivery of the Explorers Education Programme in the classroom, an evaluation of deliverables is carried out. The purpose of the assessment is to evaluate and improve the class learning experience and the children's enjoyment of the programme.

The data gathered in 2020 involved conducting a series of fun activities, including child-led methods of self-assessment, concept-mapping, questioning, and class discussions with the outreach officer. It also involved teacher-designed tasks involving active learning, environmental learning, and collaborative learning, as well as higher-order thinking and problem-solving. A series of ocean literacy games, as well as individual and class projects, were completed by the children which were assessed by the teacher and the Explorers Education team.

After completing each module, the class and children receive an Explorers Certification of Achievement.

### QUALITATIVE ENGAGEMENT WITH STUDENTS AND TEACHERS

The number of Explorers Education Programme modules delivered to classes includes: (N=214), Explorers outreach modules, additional engagement to classes (N=14), pilot outreach training (N=6), as well as workshops held with classes during science festivals (N=3).

The number of teachers engaged includes the teachers that participated in the outreach modules, as well as those that were delivered for the pilot modules as part of the Explorers Education Programme. It also includes the teachers that participated in the teachers training workshops.

**237**  
**MODULES**

**5,963**

**STUDENTS**

**414**

**TEACHERS**

**675**

**PRE SERVICE TEACHERS  
TRAINING (3rd LEVEL)**

ENGAGED IN THE EXPLORERS EDUCATION PROGRAMME

## QUALITATIVE ENGAGEMENT WITH STUDENTS AND TEACHERS

### STUDENT ENGAGEMENT

The following results are a collective score of all of the classes evaluated as part of their participation in the Explorers modules. The data provided high scores in the students' interest, and their ability to communicate about the marine subject. The pre and post evaluation of the students' awareness showed a significant increase in the students' understanding and knowledge of the marine environment and ocean literacy.

**84.2%** **STUDENT AWARENESS**  
(pre evaluation 65.1 % = 29.3% increase)

**90.8%** **STUDENT INTEREST**  
(pre evaluation 81.4% = 11.5% increase)

**87.6%** **STUDENT COMMUNICATION & PARTICIPATION**  
(pre evaluation 79.6% = 10% increase)

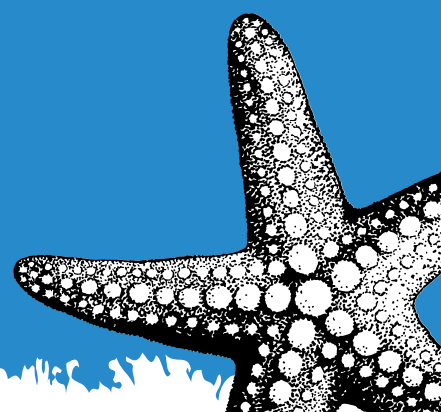
### TEACHERS ENGAGEMENT

A total of (N=116) teachers from all of the counties taking part in the programme participated in the evaluation. Each teacher provided data through a survey conducted by the outreach team. This included an evaluation carried out via face-to-face meetings, online activities, and phone conversations. The data provided by teachers in the Explorers Teacher Feedback Forms highlights a significant increase in their awareness, interest, and engagement in marine-themed modules delivered to their class. The Explorers team wish to thank the teachers who took part in the survey and welcome their ongoing feedback.

**83.5%** **TEACHER AWARENESS**  
(pre evaluation 68.8% = 21.4% increase)

**87.3%** **TEACHER INTEREST**  
(pre evaluation 78.3% = 11.5% increase)

**86.3%** **TEACHER COMMUNICATION & PARTICIPATION**  
(pre evaluation 75.9% = 13.7% increase)





# EXPLORERS 2020

## Highlights



### EXPLORERS OUTREACH TRAINING WORKSHOP

A workshop and introduction to the Explorers Education Programme was carried out with educators from counties Louth, Wexford, and Dublin in January 2020. The participants then worked with primary school teachers and their classes in their counties, reaching 147 children and six teachers.



### PRE-SERVICE TEACHERS TRAINING

The Explorers support services training team Dr Nóirín Burke and Anna Quinn, based at Galway Atlantaquaria, delivered an introduction to ocean literacy and teaching children about the marine environment to more than 250 pre-service teachers at Mary Immaculate College in Limerick, for the first time, with lecturers Dr Anne Dolan and Brigid Golden. The team also continued to work with Dublin City University where they meet with 350 2nd-year students online.



### SEA HOW TO DRAW SHORT FILMS

The Explorers Education Programme produced 14 interactive short films called *SEA How to Draw* with cartoonist and author Dr John Joyce. The drawing classes provide children with the opportunity to learn how to draw humorous representations of marine animals, research ships, and other characters, while also hearing fun and interesting marine facts. The films are available to watch at [www.explorers.ie](http://www.explorers.ie)



### **WILD ABOUT WILDLIFE – ON THE SEASHORE**

A series of short interactive films and educational content called *Wild about Wildlife on the Seashore* was produced to support teachers and outreach teams in bringing the seashore to the classroom. The films were created with Matt Kelly film production; directed and produced by Cushla Dromgool-Regan, Camden Education Trust; and presented by the Explorers team from Galway Atlantaquaria: Anna Quinn, Dr Nóirín Burke, and Padraic Creedon.



### **SHARKS AND CHILDREN FROM WEXFORD PRIMARY SCHOOL FEATURED ON RTÉ NEWS2DAY**

Explorers Education Programme Outreach Officer Padraic Creedon worked with 5th and 6th class teacher Jackie Cousins and her students, from St. Patrick's National School Craanford, Wexford, learning about sharks in Irish waters and around the world. As part of the learning experience, the children were also given a unique opportunity to share their discoveries on the children's programme RTÉ news2day.

### **MY EXPLORERS SEASHORE GUIDE WORKBOOK**

The publication of *My Explorers Seashore Guide Workbook* launched on International Biodiversity Day 2020, generated significant media coverage and interest in using the seashore as a place to visit and explore during the summer. A number of interviews were held on radio and for the national papers. Coverage for this story reached 1,312,849 readers and listeners during the summer period.

### **EXPLORERS RESOURCES ON RTÉ HUB FOR WORLD OCEAN DAY**

The Explorers Education team developed a series of resources introducing the outreach teams to teachers, parents, and children during lockdown. The *Meet the Explorers Team* content was included among the top educational resources that featured on the RTÉ hub platform for World Ocean Day 2020.

# EXPLORERS TEAM ACTIVITIES

## *Adapting to Changes*

The Explorers Education Programme outreach team are to be congratulated on their efforts where they continued to support teachers and children throughout a challenging 2020. Faced with lockdowns and restricted access to schools, the Explorers teams adapted to the changes and continued to work with teachers, providing their support and introducing ocean-themed modules to children.



### MEET THE EXPLORERS TEAM CAMPAIGN

A wide range of Explorers resources, lesson plans, and activities were developed throughout lockdown. These materials highlighted the team's favourite ocean literacy principles and concepts, enabling teachers, children, and families to have content that they could use at home. One of the popular activities was learning about John Phillip Holland and creating submarines with Mervyn from Lifetime Lab, Cork.



### MASTERED ONLINE PLATFORMS

Throughout 2020, the team adapted their delivery of the Explorers modules to include online platforms, as well as delivering personalised packs of resources to the classes. The online classes included fun presentations, props, on-line quizzes, and class discussions - that all brought the ocean to the classroom.





### VIRTUAL AQUARIUMS & FILMS

Throughout the year, the team members produced fun short personal videos which were shared in classes, as well as on social media, to help inspire children to learn about the marine environment.

Virtual aquariums were delivered to classes in Galway by Padraic. Short rockpool films were created in Clare where Carmel showed many different types of anemones. One of the highlights was Shazia in Cork filming while she was snorkelling. Here she showed all of the animals swimming about, around the in-shore area when the tide is in.



### OUTDOOR LEARNING

Many of the team adapted their seashore safaris to include safe social distancing protocols, and also created marine-themed learning excursions in the school courtyards.

With a range of learning experiences adopted throughout 2020, such as blended learning, use of online platforms, and the creation of outdoor classrooms, the Explorers team are now well equipped to continue to provide engaging marine-themed outreach activities to teachers and children into the future.

# MEDIA

# Activities 2020

The Explorers Education Programme team produced 15 press releases and news stories throughout 2020. From June to December the nine stories published generated 43 articles in the trade, web, local, and national press. Three interviews were conducted on radio, and the Explorers also featured on national television.

The Explorers Education Programme team developed a series of social media campaigns in 2020. The team focused on increasing its reach and raising awareness about the Explorers Education Programme and its educational activities. This resulted in significant increases in both Facebook and Twitter engagement from June to December 2020. The Explorers Facebook page saw an increase of 11.2 per cent Likes, and a eight per cent increase in Followers. The Explorers Twitter page saw an increase of 20 per cent in Followers and a 159 per cent increase in profile visits over the the six-month period.

## THE CAMPAIGNS INCLUDED:

### EXPLORERS MEET THE TEAM

Avatars representing the team were created where each team member highlighted their favourite ocean literacy fact. These were linked to 26 online educational resources that had been developed for parents and teachers.

### EXPLORERS CELEBRATING NATIONAL & INTERNATIONAL DAYS

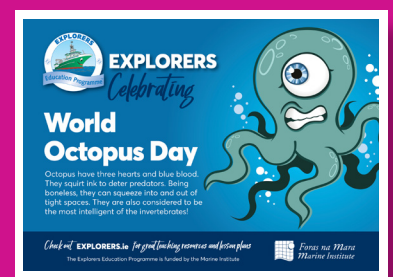
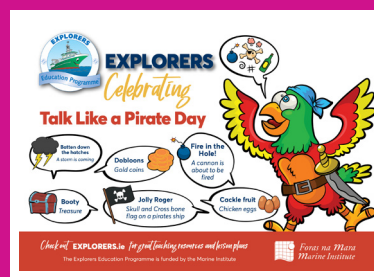
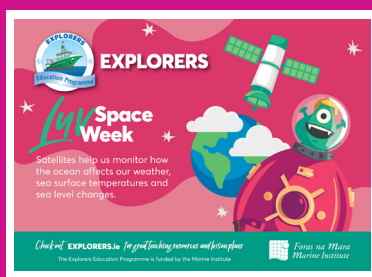
More than 25 social media posts were created that included fun facts about ocean literacy themes, and celebrated international dates of recognition.

### SEA HOW TO DRAW

Promotional posts supported the 14 short films that had been produced with Dr John Joyce, teaching children how to draw marine-themed cartoons.

### MONTHLY CAMPAIGNS

Monthly campaigns were also developed for Space week, Science week and Maths week. The campaigns successfully increased the awareness of the Explorers Education Programme, promoting school resources that support STEM.



# SOCIAL MEDIA STATS JUNE-DECEMBER 2020



**93K**  
**IMPRESSIONS**

**FOLLOWERS: 619**

**PROFILE VISITS: 801**

**TOP TWEET/IMPRESSIONS:**

- 3,520: Sea How to Draw classes with Dr John Joyce
- 3,650: Explorers Outreach Officer Padraic Creedon meeting with schools online
- 3,366: Explorers Outreach Centres activities



**121K**  
**TOTAL REACH**

**LIKES: 1071**

**FOLLOWERS: 1103**

**TOP POSTS / REACH:**

- 4,068: Want to know more about the Explorers Education Programme
- 1,700: RTÉ News2day
- 1,414: Explorers Outreach Centres



**1,081K**  
**Vimeo  
Plays**

# TEACHERS *Training*



## PROFESSIONAL DEVELOPMENT TRAINING FOR TEACHERS

Teachers Continuing Professional Development training was provided by the Explorers team, reaching over 120 teachers in 2020.

The themes for the webinars included:

- Exploring Ireland's Seashore through Science, Maths, Geography, English & Arts
- Tools for Exploring the Seashore & Ireland's Marine Environment Using Cross-Curricular Subjects with Your Class
- Using the Ocean to Get Creative with Numeracy in the classroom
- Exploring the Ocean and Marine Environment with Your Class Using the Explorers Education Programme Materials
- Using the Ocean to Get Creative with Literacy in the Classroom.

The teachers training was facilitated by the Explorers outreach and support services team, including Anna Quinn and Dr Nóirín Burke, Galway Atlantaquaria. The training was also supported by Cushla Dromgool-Regan at the Camden Education Trust, and the Education Support Centres in Galway, Tralee, West Cork, Waterford, and Wexford, as well as the Blackrock Education Centre in Dublin.

## INITIAL TEACHERS EDUCATION

The development of initial teachers education was carried out with Dublin City University, the Technical Institute of Dublin, and Mary Immaculate College.



The teachers training collaboration with Mary Immaculate College also led to the publication of an article in *Teaching Geography* journal entitled 'Ocean Literacy: Incorporating a multidisciplinary approach to the study of the sea'. The article was based on training carried out with Mary Immaculate lectures in February 2020, and in pre-service teacher workshops. Authors included Dr Anne Dolan, Anne Marie Morin, Dr Sandra Ryan, Cushla Dromgool-Regan, Dr Nóirín Burke and Anna Quinn.



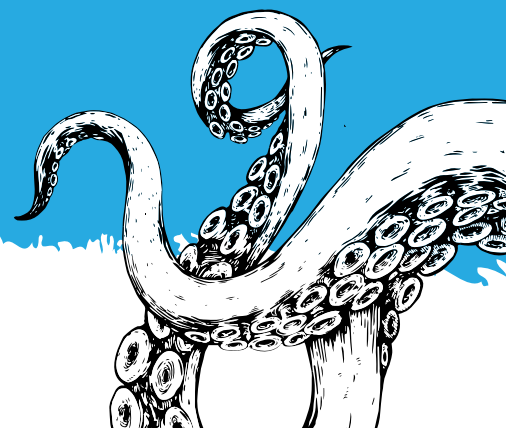
# At Events

The Explorers Education Management and Support Services teams participated in a number of national and international online events promoting marine education and ocean literacy throughout 2020. Event highlights included:



# FEILTE TEACHERS FESTIVAL 2020

## SCIENCE WEEK







## COMMOCEAN

Cushla Dromgool-Regan presented the publication *My Explorers Seashore Guide Workbook* at the 4th International Marine Science Communication Conference CommOCEAN, highlighting the successful launch of the publication earlier in 2020, that connected children, parents, teachers, and the media with the seashore in Ireland.

## EU AND INTERNATIONAL EVENTS

The Explorers Education Programme supported the EMSEA end-of-year celebrations by promoting marine science education. Using education examples from the Explorers Education Programme, collaborative activities were also developed to support the UN Decade Ocean 2021-2020.



## CLIMATE ACTION DAY

Primary school students from St. Augustine's N.S. Clontuskert, in County Galway, joined more than 30,000 teachers and students from over 135 countries, along with world leaders and environmental experts including Dr Jane Goodall, President Juan Manuel Santos, and Sir David Attenborough, to celebrate Climate Action Day, an online event showcasing their solutions to climate change. The Explorers Education team had met with the class earlier in the year as a guest visitor to discuss the influence climate change has on the ocean, as part of their school project.



# A BIG *Thank You*

The Camden Education Trust is responsible for the strategic development and management of the Explorers Education Programme. We would like to thank the Explorers support services team at Galway Atlantaquaria for their support with the delivery of the Explorers programme. We had a very busy and rewarding year, in which they provided great support which helped reinforce the successful roll-out of the Explorers Education Programme throughout the year.

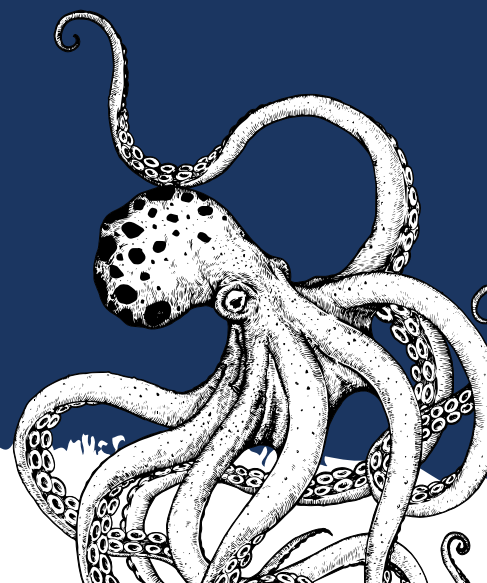
The Camden Education Trust would also like to thank the outreach teams for the delivery of marine education to primary school teachers and children. Despite not being able to visit schools during lockdown, the teams persevered and continued to keep in contact and support teachers. We also want to thank the teachers, parents, and children for continuing to engage with the Explorers Education Programme throughout 2020. This was a learning experience for us all, and, in turn, has helped us make the Explorers Programme accessible in lots of new ways.

Finally, on behalf of the Explorers team, the Camden Education Trust would like to thank the Marine Institute for their continued funding and support of the Explorers Education Programme. Their engagement highlights the value of partnerships essential for sharing marine science with the wider community and children at a young age.

The Marine Institute is the national agency for marine research, technology development, and innovation in Ireland.



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**www.EXPLORERS.ie**



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