WP 7 - Preparing for a future world's societal challenges: improving education and awareness at all societal levels



Terry Callaghan
University of Sheffield



Aim of the WP

The main objectives are

- 1) to develop and deliver educational resources at school and university level in response to needs identified by teachers across the world
- 2) to increase awareness of the general public (including influential people) to Arctic environmental change and its global implications
- 3) to establish a new generation of researchers capable of making high level assessments of environmental change in the Arctic and its global implications.



Partners involved in the WP



The University Of Sheffield.





NIBIO

NORWEGIAN INSTITUTE OF BIOECONOMY RESEARCH



BBG STUDIOS



Increased public awareness of Arctic environmental change and its global implications
(Lead: USFD, subcontract BBC Studio Productions Limited)

Extreme weather events

Indigenous Peoples' perspectives on climate change

Permafrost thaw effects on greenhouse gas emissions

Albedo of the Greenland Ice Sheet





Networking and communication activities with teachers and schools

(Lead: IGF-PAS)

 newsletters for teachers informing on new educational resources and online lessons,

- surveys for teachers (feedback on educational tool-kits)
- face-to-face meetings with teachers workshops, conferences, visits to schools
- a short brochure and a promo-video



Promotion of polar issues by providing educational resources to schools.

(Lead: IGF-PAS)

At least 3 tool-kits will be developed:

- syllabus with introduction
- 5 basic concepts to remember
- mind map
- glossary
- materials for teachers, lesson plans
- worksheets for pupils
- online activities (crosswords, quizzes etc.),
- ppresentations, animations or recordings of experts' lectures
- experiment scenarios





Online lessons for secondary schools (Lead: IGF-PAS)

- 60 online lessons for secondary schools (IGF-PAS + NIBIO)
- additional set of webinars by Transnational Access Users (all stations with TA)



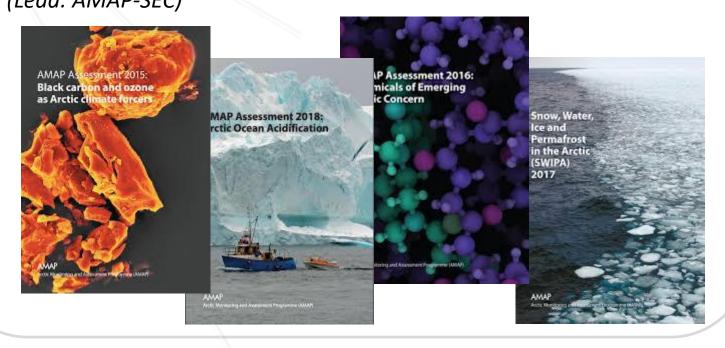




EDU-ARCTIC: ENGAGING STUDENTS IN **STEM**EDUCATION THROUGH ARCTIC RESEARCH



Ensuring a new generation of international environmental assessors (Lead: AMAP-SEC)





Future deliverables

D7.1-4 Outreach film 1-4 (Month 24, 30, 36, 42)

D7.5 Report on educational tool-kits –including detailed description of prepared materials, instructions on how to use them in school practice, links to the ready-to-use packages and summary of teachers' feedback on proposed educational resources (Month 42)

D7.6 List of conducted online lessons –list of webinars with short description of each topic and information on number of schools, which participated in each lesson(Month 48)



Internal collaboration

- Collaborate with WP3 the Transnational Access team to convert TA projects into educational resources
- Collaborate with WP2 the Station Mangers' Forum to identify future Assessors for AMAP
- Collaborate with WP4 on extreme weather events film
- Collaborate with WP6 on artificial intelligence and how old material can be converted into educational resources



External collaboration

 Seeking funding for continuing production of animations







ONLINE LESSONS











- To encourage interest in science, technology, engineering and mathematics (STEM) education to secondary school students
- To provide an innovative and supportive educational program, accessible to schools, educators and students across Europe and beyond
- To establish strong links between the research and education communities by connecting schools to scientists at Arctic research stations and research institutes throughout Europe















EDU-ARCTIC: 1250+ teachers from 60 countries





How it works

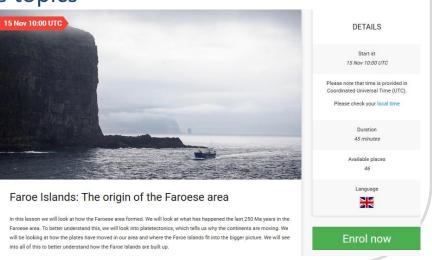
Webinars with experts in Arctic research and Earth sciences from research institutions in Europe

Available to teachers (1200+) from 60 countries

Wide variety of natural science topics

Duration of ca. 30 minutes

Up to 48 school groups may participate in one lesson







Preparation

- Choose the topic of your scientific interest (and think what is interesting for students).
- Send information/invitation (topic, date and time, school level and pupils' age) minimum **2-3 weeks in advance**.
- Prepare visual materials.
- Think of and prepare activities for students: short web based competitions for classes, worksheets, tasks.







- Begin with your career story or some intriguing science story. It will be something unique the lesson has to offer.
- Start with a small talk to help participants to get familiar with your accent.
- Start with something intriguing, mysterious, unexpected, as this will allow to involve pupils in learning just from the very beginning.
- Stimulate pupils' motivation during online lessons and think of various forms of activities.
- **Do not provide too much information**. Just engage in activities, inspire and surprise pupils, rather than concentrate on facts and information.





Technical aspects

- We use Cisco Webex teleconference tool: audio and video streaming, chat function, display screen, share files (e.g. presentations, pdf files, graphics and videos)
- We record lessons for future use and publish them on our YouTube channel (unless you disagree)
- Have a try on the tool during testing webinar
- We provide technical assistance by additional person during the webinar.







All Articles

Categories

Program





















How to start?

Send us an e-mail to: gozdzik@igf.edu.pl and propose topic and date

We will take care of:

- Promotion of the lesson among teachers, including social media
- Enrollment of teachers
- Technical aspects
- Pedagogical advice (if requested)
- Post-production of the recording

