WP 2
Scientific coordination, mentoring and education
USFD LU UOULU TSU IGF/PAS

Specific aims:
- To coordinate the communication of the science and to foster international collaboration
- To promote Arctic and climate change issues in school and university education and to provide appropriate resources

Up-dates since the Svalbard Meeting
Mentoring and supporting in general
- WP1 - Bulletin board established on the web site advertising facilities for mentoring on a range of science topics
- WP3 - Awareness of the Scene
- WP4 - Chair of TA Board – suggesting priority topics
- WP6 - Systems approach
- WP9 - Meeting of decision makers, local peoples and researchers; developing paper
Promoting Arctic and climate change issues in education

INTERACT continues to work with the award-winning UK Charity
Wicked Weather Watch
Sub-task 2.2c. Development of online educational resources and outreach for schools and universities

Process for animation development

1. Identification
(PAS, UOUUL) (PAS) CAWI surveys, direct contact with teachers and teacher associations, through Wicked Weather Watch, Science Stories, searches

Results of CAWI survey I
2. Development (USFD, TSU)
3. Progress

Completed

- General permafrost dynamics
- Ice wedge polygons
- Glacier dynamics

In development

- Hanging valley formation
- Understanding past climate changes
- Land-surface feedbacks

Ca. 25 more resources needed!
Completed
Multiple educational stages: “Wicked Climate Detectives” developed to undergraduate level

Wicked Climate Detectives

Arctic Climate Change
How did climate and weather change in the past?
Digging into ponds and peat bogs

You will need:
- Cardboard roll such as the centre of a kitchen paper roll
- Wooden kitchen spoon, knife or scissors
- Artefacts shown on the next page which can be pictures or models. (The RSPB sell small brochures that can also be used)

Preparation:
- The teacher fills the cardboard tube with different coloured layers of plasticine/play dough with an artefact (shown on the next page) between each layer.
- A hole is made at the top of the roll so that a wooden spoon handle can be inserted.
- The teacher demonstrates how to turn the “corer” into an imaginary sediment or peat. He/she then opens the tube, and starts to separate the layers starting at the bottom, the “oldest” layer. The class is asked what the artefact indicates.

Sometimes engines are used to core the tundra peat.
Sometimes ice on lakes is used to stand on to take cores from the lake bottom.

What will you find when you open the tube, taking layers from the bottom to the top?

A simple model of a coring device

For more resources and information on the science visit
www.wickedwetherwatch.org.uk and www.eu-interact.org
4. Dissemination

- Web sites – stand alone
- Web sites – packages
- i-book INTERACT Science Stories Volume 2
- Up-dated Mass on-line Course
- Summer schools
- European educational portals
- A short brochure
- A promotional video clip for teachers
- Visits to schools
- Meetings including teachers associations
- Newsletters for teachers
- Cooperation with the H2020 EDU-ARCTIC programme and Polar Educators.
Contents of the educational package

Main:
• Animation, and/or
• Powerpoint presentation;

Accompanying:
• Instructions for teachers;
• Worksheets with tasks for students;
• Games, quizzes, crosswords, on-line tests, photos, short videos, etc.
Suggested types of packages

- Permafrost Done
- Glacier dynamics 100% complete
- Climate change – causes and consequences
- Links between the atmosphere, land, and ocean (e.g. carbon and water cycles) 25% complete
- Fauna of the Arctic
- Landscapes and land forming processes 25% complete
- Sea ice
- Indigenous People of the Arctic
- Scientific research in the Arctic 10% complete

Help with identifying existing resources welcome!
Outreach

County Governor, Mayors, industrialists, in audience of 300, Town Hall, Olpe

Reaching out to Russian Ministers of Education and Environment
Remaining Deliverables

D2.1: Report summarising feedback from target end users concerning ways to extend the educational value of INTERACT’s Arctic gallery and glossary (*Month 12*).

*Delayed until sufficient resources have been developed: now *Month 48*

D2.15: Report on INTERACT educational resources for University of the Arctic (*Month 38*)

D2.5: Recommendations to authors of educational resources (*Month 36*)

D2.6-8: Three newsletter issues for teachers once new resources have been delivered (*Month 13, 25, 37*)
D2.10: Report of INTERACT Science Stories 1 (2011-2015) with interactive format embedded (Month 18)


D2.13: Promotional brochure and video clip (Month 24)

D2.14: Series of infographics (Month 36)

MS2.2: Up-dating and expansion of the online Coursera video course “The Changing Arctic” Month 36

Thank you for your attention!