

INTAROS Educational packages on terrestrial and marine monitoring to enhance literacy of Arctic Observations and interest in scientific careers among secondary schools' students

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INTAROS

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Introduction

The INTAROS project offers educational materials, which were produced specifically for secondary schools in order to enhance literacy of Arctic Observations among teachers and students.

Although, there are many polar materials available, they are usually not specifically targeting schools in the context of monitoring and field works. This material includes real life examples of field campaigns and observations conducted in the Arctic and is oriented towards demonstration of various monitoring tasks in order to inspire interest of youngsters in undertaking similar careers in the future.



Educational toolkits

Educational toolkits include:

- 4 videos with researchers,
- INTAROS trailer,
- INTRAOS video and graphic on field campaigns in the Arctic,
- INTAROS marine TABOO game,

as well as products produced outside the project (e.g. National Geographic videos, WMO video, TedEd lesson, Polarpedia resources).



Working in the Field - Marine monitoring in Greenland.



Meteorological observations and measurements at the...



Working in the Arctic - Hydrochemical...



Working in the Arctic - Geomagnetic measurement...

Intaros Toolkit - Terrestrial Monitoring

[View](#)[Edit](#)[Delete](#)

Creator	Agata Goździk
Age Range	15-16, Above 16
Big Ideas Of Science	Planet Earth
Subject Domains	Geography And Earth Science, Earth Science, Climate (Earth Science), Geography
Language	English
Average Learning Time	90 Minutes
License	Creative Commons Attribution-Noncommercial (CC BY-NC) - default
Works Offline	No

Description

The package is dedicated to the monitoring of the Arctic. Students get the general information about the Arctic, its borders and living conditions and find out why integrated Arctic observation system is crucial for understanding our Planet. Moreover, they learn what is observed and what are the main ways of collecting of data. They also become familiar with researcher's work at polar stations and learn about work of meteorologist, geomagnetic observer, hydrochemist, glaciologist, geologist and geomorphologist. Thanks to that they may draw conclusions about working in the field and assess how they would like it.

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Intaros Toolkit - Marine Monitoring

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Creator Agata Goździk

Age Range 15-16, Above 16

Big Ideas Of Science Planet Earth

Subject Domains Environmental Education, Environment, Sea, Ocean, Ecosystem (Environment), Geography And Earth Science, Earth Science, Geography, Climatic Influences On Ecosystems, Coasts

Language English

Average Learning Time 90 Minutes

[more ...](#)

Description

The warming trend in the Arctic is twice as large as the global average in recent decades. The loss of sea ice amplifies the warming trend because the ocean surface absorbs more sun heat than the surface of snow and ice. How does that affect the planet? This INTAROS educational package will teach the students about the importance and uniqueness of the Arctic Ocean, how the sea ice extent is changing over years and what are the consequences of the melting ice and why the Arctic Ocean observations are crucial for understanding the planet. Moreover, they will become familiar with researcher's work in polar regions and learn about various parameters measured and observed within marine monitoring. They will be able to draw conclusions about working in the field and assess how they would like it.

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TABOO Rules

One person draws a card with a word and describes it so that the other players can guess it.

Do not use any part of the word to be guessed nor synonyms. You cannot use four prohibited words that are on the card under the main word.

18 arctic passwords to be guessed!

Concept Mapper



Quiz

In the physical environment they focus on

nutrients

salinity

because it is much affected by...

coming from glaciers, while temperature is above 0

Nutrients are important because they

- ☐ are eaten by shrimps and krill
- ☐ are mostly limiting phytoplankton, which is the lowest part of the food chain.
- ☐ are mostly affected by melting water
- ☐ are eaten by whales

Thank you for attention

Links to the toolkits:

<https://www.golabz.eu/ils/intaros-toolkit-marine-monitoring>

<https://www.golabz.eu/ils/intaros-toolkit-terrestrial-monitoring>