A Journey to a Cold Seep: A paired teaching video lesson

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What is Paired Teaching?

Teacher (in-class teacher)

Scientist (video-teacher)
What is Paired Teaching?

**Scientist**
- Introduction
  - Ask a question or invite students to do an activity
- Summarize results
  - Present content
  - Ask a question or invite students to do an activity
- Summarize results
  - Draw conclusions
  - Invite students to learn more
- Teacher’s guide (for in-class teacher only)

**Teacher**
- Classroom Activity 1
- Classroom Activity 2

**Video segments** (~15 min)

**Inside classroom** (~45 min)

Modified from Mohadjer et al. (2021), *Geoscience Communication*
Goal
To promote teaching and learning about the Arctic Ocean in schools by creating virtual lessons instructed by scientists in partnerships with teachers

1. Lesson information
2. Video protocols
3. Lesson structure & content
Objectives
1. To locate the Earth’s methane/gas hydrates
2. To discover the processes that happen at continental margins
3. To learn how scientists study methane

Lesson Information

Level
1st year high school General Science course in Norway

Pre-requisite
Understand maps, molecular structure and greenhouse effect

Length
1 hour (15 min video, 45 min classroom activity)

Materials
3 maps, molecular modelling kit, extra imagery from seafloor
Video Protocols

**STEPS:**

- Develop lesson concept
- Design lesson architecture
- Write the pseudo script
- Make the video

All steps are taken by both the teacher and the scientist.

Preparing to film during the AKMA2 expedition
Lesson Structure & Content

Scientist
video segments
(20 min)

Teacher
In-class activities
(30 min)

Introducing Activity 1
(5 min)

Classroom Activity 1
(Mystery bottle, 5 min)

Introducing Activity 2
(3 min)

Classroom Activity 2
(Exploring maps, 10 min)

Introducing Activity 3
(1 min)

Classroom Activity 3
(Discovering methane, 15 min)

AKMA & Call to Action
(10 min)

Video snapshot of Activity 1

In-class activities

Teacher’s guide
Resources for Educators

VIDEO: https://tinyurl.com/pairedteaching
LESSON PLAN: https://tinyurl.com/mps7urt6

EGU23 Live Session:
Thu, 27 Apr, 13:00–14:00 CEST (online)
Zoom link listed under Pop-up Networking Events

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