Erasmus + STEM For All Seasons

Weather - Stations - Autumn on 09.11.17
-------------------------------------------------- ------------------------------------------------------------------------
Theme: Where does the wind come from?

1.

Entry: Autumn: a lot of wind, storms, currently in Germany: Sturm Herwart
Movie, YouTube: Where does the wind come from? (Alexander Ewerhardt) to minute 1.22

2.

 Guesses: stick to AB

3.

Film Minute 1.22 - 3.20: Attempt tealights / plastic bag, realization: warm air rises, cold air sinks downwards, transfer to earth / sun: sun = wind machine
Since you can not color air to observe it, we do the wind experiment with water

4.

Experiment:
You need:
Glass with water
warm water (red) cold water (blue)
Let some cold water slide into the big glass of water. What is happening?
Gently add the warm red water. Watch! What is happening?

5.

Research Protocol (differentiated by grade: 1/2 and 3/4)

6.

Common knowledge:
The warm, cold water rises, the cold, blue water drops. Wind is the same: wind arises when warm, light air rises and cold, heavy air moves in. Circulation with low pressure and high pressure area

Literature: Weather: Research, Building, Astonishment from A to Z, Publisher Belz & Gelberg, 2014
Movie, YouTube: Where does the wind come from? (Alexander Ewerhardt)

Researcher's Protocol: Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Where does the wind come from?

My ideas and conjectures:
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Since you can not color air to observe it, we do the wind test with water.

Experiment

:
You need: A big glass of water, warm water (red), cold water (blue)

1. Slide some cold water into the large glass of water. What is happening?
    Write and paint:
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



2. Gently add the warm red water. Watch! What is happening? Write or paint:
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Were your assumptions correct? Yes \_\_ No \_\_

I found out: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

This is what it looks like on Earth: