

Dear {{voornaam}},

This is the Scientists4Future NL newsletter of October 2020, this month coordinated by S4F Team Amsterdam. Please consider forwarding this newsletter to a friend or colleague. If this email has been forwarded to you and you'd like to join our mailing list, [click here](#). To unsubscribe, use the link at the bottom of this email.

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Editorial Scientists4Future Amsterdam

The focus of this newsletter is on teaching, education and increasing public awareness of climate change. Many of us are on a regular basis involved in teaching, sometimes on topics directly relating to the climate and ecological crises, but often also on other topics. In this newsletter, Loek Spitz describes his methods to use climate change examples when teaching any topic to increase students' knowledge and engagement of climate change.

Beyond students, it is also essential that the general public can find good and objective information about climate change. The Utrecht Young Academy and Scientist4Future NL are next week launching a new website [KlimaatHelpdesk](#) where everybody - teachers, students, schoolkids and anybody else interested in any and all aspects of climate change - can ask questions that will be answered by experts in the field. We hope to create a very easy accessible and solid collection of questions and answers. You are all warmly invited to attend the launch event on October 29, 16:30 - 18:00. Please share the [event invitation](#) widely!

Another way to facilitate learning amongst ourselves and others is via books. In our "recommended reading" section, the new book by climate scientist Bart Verheggen is introduced. This very clearly written work describes how climate change denial is organised, and provides a rich source of factual scientific information, beautifully demonstrating that science does not represent "just another opinion," but that all the (grim) facts interlock and lead to the inescapable conclusion that humans are quickly changing the earth in unprecedented ways. Indeed, facts that everybody should know about.

Finally, we have the first edition of a new series "Personal reflections" where S4F members share their thoughts and feelings about climate change and about being an climate activist. And don't miss the brand new website of [Scientists4Future Delft](#). Enjoy!

-S4F-Amsterdam-

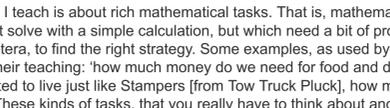
Klimaat Helpdesk Premiere

For the past few months the [Utrecht Young Academy](#) and [Scientists4Future NL](#) have been working very hard to set up the site [Klimaat Helpdesk](#). On this website, everybody can ask questions about all aspects of climate change, or look up earlier answers given by true experts. The group started as an initiative by Scientists4Future NL but by now has grown into an independent organisation with a team of more than 20 volunteers.

They are taking care of collecting incoming questions and assign editors who find experts that answer these questions. Independent reviewers check the answers before they are published on the website. Each answer has a short summary at the top, and progressively more detailed information further down.

You are warmly invited to the festive online premiere on **Thursday October 29th 16:30 - 18:00**. Get inspired by a panel of thinkers and doers that will discuss the importance of accessible scientific information about climate change. Please share this [invitation](#) widely in your network. Come over on the 29th to hear about this wonderful project in an online interactive livestream. Register [here](#), or join the live stream at [bit.ly/KH4premiere](#).

Klimaat Helpdesk



Wij nodigen je uit voor de online première van de Klimaat Helpdesk op donderdag 29 oktober.

www.klimaathelpdesk.org for all your questions about human impact on the natural world

Teaching & Climate

I teach mathematics education at the Universitaire Pabo van Amsterdam (UPvA), which is a double bachelor program combining primary school teacher education (at HvA) and pedagogical sciences (at UvA). For some time now I have been looking for a way to also teach the students something about climate, because I believe we as teachers could and should do more to make our students realize the huge trouble we're in, and get them to think about possible solutions. This is not really part of the usual mathematics education curriculum, so I had to get a little creative.

I hope that by describing the solution I eventually came to I might inspire other teachers to find creative ways to get their students thinking about climate, even if that is not the main goal of your course. After all, as teachers we serve as examples for our students, and in this way we can have a fairly large impact on a big group of people.

One of the courses I teach is about rich mathematical tasks. That is, mathematical problems which you can't just solve with a simple calculation, but which need a bit of probing, brainstorming, etcetera, to find the right strategy. Some examples, as used by my students in previous years in their teaching: "how much money do we need for food and drink on our school trip?", "if we wanted to live just like Stammers (from Tow Truck Pluck), how many mattresses would we need?". These kinds of tasks, that you really have to think about and which can be solved in different ways, are really important in primary school mathematics education. For instance, they teach the children to solve real world problems on their own, and it helps them understand what they need all those sums for that they practice so often.

Every year I introduce this concept to my students by having them solve a rich mathematical task themselves. Up until now I always used the question "how many Easter eggs can you fit into a Fiat?" (based on a question posed in a newspaper some years ago; the original was about pepernoten, but that doesn't fit well with the time of year I teach this class). This year I realized that this lesson was my opportunity to get my students thinking about climate change and how their own choices might influence it. The new task became: "How much CO2 emissions can we save if the whole UPvA decides to stop flying?" A rich task, as you must first figure out how much everyone would fly normally, how many teachers and students the UPvA has, how much CO2 is emitted by an airplane (depending on destination) and what people will do instead of flying. In the lesson, we started with brainstorming these questions with the entire class, after which the students went into breakout rooms to try and come up with an answer to the problem.

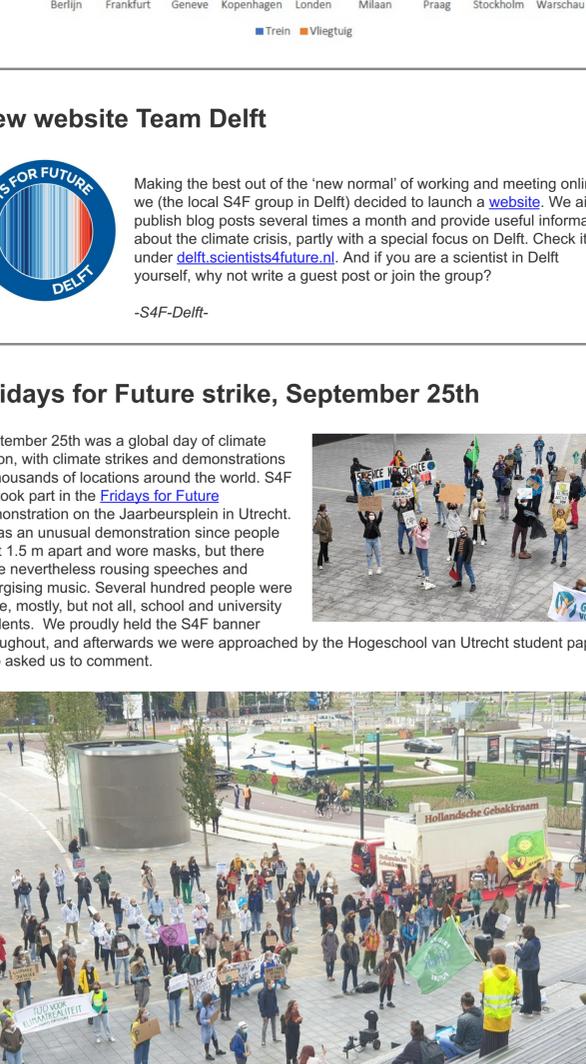
After about twenty minutes of calculation the answer on average turned out to be: about 300 tons of CO2 a year. It was nice to see that all the groups had managed to do a version of the calculation and had arrived at an answer. This is certainly not always the case; a lot of students in primary teacher education have trouble with mathematics and as a result are not motivated to use it. For me this was a sign that the subject really is interesting to the students; they really did want to get an answer.

In the discussion at the end of the lesson we talked about what this number actually means; how much is 300 tons of CO2; is it a lot? By comparing it to the average Dutch CO2 emission per person per year (15 tons) we came to the conclusion that we would be able, together, to compensate the complete yearly CO2 emission of twenty people by deciding to stop flying. Whether that will really happen is another question, but the fact that the students have now given this some actual thought should certainly have a positive impact. As one of the students said: "wow, that is actually quite a lot. I had no idea flying was so much worse than taking the train... But yeah, I don't know if I will really always take the train from now on, that's also a bit weird". So we certainly are not there yet, but if we don't start by forcing our students to at least think about it, we'll never get there.

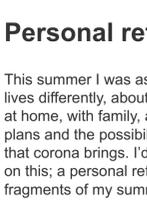
In the end I was very happy with this lesson, which I hope can lead to these kinds of ideas spreading; not only among students at the UPvA, but also to primary schools. I know for instance that there are now students teaching about the amount of paper necessary for all final exams in the Netherlands or about the number of cars in a traffic jam. So, the youngest kids will be prepared for what is to come, let's make sure the older ones are as well!

-Loek Spitz-

CO₂ uitstoot in kg voor een enkele reis vanuit Amsterdam voor trein en vliegtuig



New website Team Delft

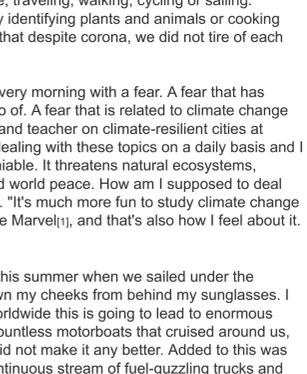


Making the best out of the 'new normal' of working and meeting online, we (the local S4F group in Delft) decided to launch a [website](#). We aim to publish blog posts several times a month and provide useful information about the climate crisis, partly with a special focus on Delft. Check it out under [delft.scientists4future.nl](#). And if you are a scientist in Delft yourself, why not write a guest post or join the group?

-S4F-Delft-

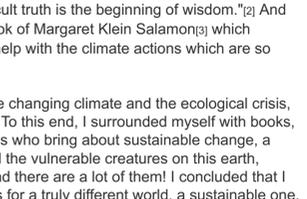
Fridays for Future strike, September 25th

September 25th was a global day of climate action, with climate strikes and demonstrations in thousands of locations around the world. S4F NL took part in the [Fridays for Future](#) demonstration on the Jaarbeursplein in Utrecht. It was an unusual demonstration since people kept 1.5 m apart and wore masks, but there were nevertheless rousing speeches and energising music. Several hundred people were there, mostly, but not all, school and university students. We proudly held the S4F banner throughout, and afterwards we were approached by the Hogeschool van Utrecht student paper who asked us to comment.



Personal reflections

This summer I was asked to think about our lives differently, about our life in times of corona, at home, with family, at work, about making plans and the possibilities and impossibilities that corona brings. I'd like to share my thoughts on this; a personal reflection illustrated with fragments of my summer vacation. And I wonder, how different are our lives actually?



Corona made us – me, my husband Bas and our three children Sietske, Mijne and Jaap – decide to stay in the Netherlands. We had a very good time together and spent two weeks on Texel island, sailed on the Randmeren and went on a cycling holiday around Amsterdam. In addition we enjoyed our own small house and garden in Watergraafsmeer with clean swimming water next door (the Weespertrekvaart).

We couldn't get enough of being together: at home, traveling, walking, cycling or sailing. Outdoors enjoying nature, at the dining table, busy identifying plants and animals or cooking everything from our vegetable garden. How lucky that despite corona, we did not tire of each other and stayed healthy!

And yet, this summer vacation I woke up almost every morning with a fear. A fear that has worsened in recent years and which I cannot let go of. A fear that is related to climate change and the ecological crisis. As a climate researcher and teacher on climate-resilient cities at Amsterdam University of Applied Sciences, I am dealing with these topics on a daily basis and I know that human-caused climate change is undeniable. It threatens natural ecosystems, biodiversity, water, food supplies, public health and world peace. How am I supposed to deal with this difficult truth? It can make me deeply sad. "It's much more fun to study climate change than to experience it," said climate researcher Kate Marvel^[1], and that's also how I feel about it. It actually makes me cry.

Those tears came in earnest, one sweltering day this summer when we sailed under the Hollandse Brug on the Gooimeer. Tears rolled down my cheeks from behind my sunglasses. I don't like scorching heat anymore knowing that worldwide this is going to lead to enormous numbers of deaths as the climate changes. The countless motorboats that cruised around us, leaving us constantly in diesel and petrol fumes, did not make it any better. Added to this was the view we had on the Hollandse brug, with a continuous stream of fuel-guzzling trucks and cars. What I saw reflected our enormous addiction to fossil fuels and it affected me deeply.

What about the future of our earth? And why, WHY do us people, managers, leaders, politicians, directors and voters make choices that do not serve the interests of nature, the environment and the survival of the earth. Not just for ourselves but for our future generations?

Bas saw my tears and while I tried to keep our sailing boat on course, he comforted me somewhat by saying that my grief is at least a powerful expression of my motivation for a sustainable world. "Coming to terms with this difficult truth is the beginning of wisdom."^[2] And interestingly, I am now reading a very inspiring book of Margaret Klein Salamon^[3] which describes how you can use this grief and pain to help with the climate actions which are so urgently needed.

This summer, I was more sad than usual about the changing climate and the ecological crisis, but I also tried to turn these feelings into courage. So this time, I surrounded myself with books, webinars, interviews and talks of brave role models who bring about sustainable change, a fossil-free society, restore the world and protect all the vulnerable creatures on this earth, including animals, nature and the environment. And there are a lot of them! I concluded that I am determined to join the list of stubborn optimists for a truly different world, a sustainable one, and I want to speak up about that!

Using sustainability is so much more than taking a short shower, switching to green energy or true a reusable bread bag when you go to the bakery. We can have much more impact if we make our voice heard in every small or large purchase that we make, in planning our next vacation destination, in the next elections, in our conversations with family, friends and colleagues, and in all choices that we make at home and in the organizations we work or are involved in.

I want to contribute to that dialogue, one in which we find out whether our way of life and the choices we make, really do contribute to regeneration and a sustainable earth and whether we can start to live differently.

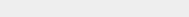
-Lisette Klok-

[1] <http://www.marvelclimate.com/>

[2] Roy Scranton, *Raising my child in a doomed world*

[3] <https://facingtheclimateteamergency.com/>

Recommended reading



- **Facing the climate emergency - How to transform yourself with climate truth** by Margaret Klein Salamon and Molly Gage. This book is a must-read. Margaret is a clinical psychologist who became climate warrior. She very clearly describes how you can use grief and pain about climate change to transform yourself, your friends and colleagues to protect the world and humanity. - [more information](#)

- **Wat iedereen zou moeten weten over klimaatverandering** by Bart Verheggen. This book is another must-read. Bart is a climate scientist and also editor of the scientific blog "[klimaatveranda.nl](#)". He talks about the psychological mechanisms behind climate denial. The book also provides a crystal clear overview of all the facts about climate change. A review of the book can be found [here](#) and more information [here](#).

Upcoming events

- October 29, 2020 16:30-18:00 - **Première Klimaat Helpdesk** - You are warmly invited to this festive online premiere of the Klimaat Helpdesk that makes scientific information about climate change accessible. Register [here](#), or join the live stream at [bit.ly/KH4premiere](#).
- November 7, 2020 - **Symposium Tackling the Climate Crisis: Interdisciplinary Perspectives on Climate Change Education and Communication** - 18th Swiss Geoscience Meeting - online - [more information](#)
- November 19, 2020 - **University Rebellion NL action day** - University Rebellion is an independent branch of XR: "We think that universities have an important role to play in the climate crisis. Thursday 19 November, there will be a national action where we will deliver our manifesto to all university boards in the Netherlands." More info about their action and their manifesto will follow in the next newsletter, or follow them on [Facebook](#) or Instagram (@universityrebelliennl).

Local groups - get involved!

Currently, there are local groups active in Amsterdam, Delft, Nijmegen and Utrecht and in Groningen en Deventer groups are being formed. If you wish to get involved (or start your own local group) [contact us](#) and we'll get back to you shortly.

For a short introduction on joining, read our [welcome document](#).

Finally, check out our [website](#), or follow us on [Facebook](#), [Instagram](#) or [Twitter](#) where we will be sharing national and international news regarding the role of scientists in times of the climate crisis.

Local S4F-NL groups Adapted from [original](#)

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