

Evaluating the impact of climate change Professional Development for primary teachers under the overarching theme of COP26



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The climate change workshop has been developed to discuss the implications and possible solutions to climate change on a global scale, alongside easily accessible but effective supporting practical's to visualise and engage.

COP26 will be biggest summit the UK has ever hosted

It is being described as the most significant climate event since the 2015 Paris Agreement

Prime Minister Boris Johnson pledged that 2020 would be the "defining year of climate action" when he joined Sir David Attenborough to launch the next United Nations climate change conference.



Pupils are acutely aware of environmental, political, and socio-economic problems that societies face today. They have demanded urgent action on a global scale with "school strike for climate" and have become engaged with Greta Thunberg's activism, often cited as a diverse role model that is key for widening access and inclusion.



Furthermore the next generation are more inclined to choose a career that addresses these global concerns.

Primary Workshop

The integration of science with other topics has been highlighted as a high priority for primary teachers with an emphasis on how science influences everyday life - Especially with pupils making decisions about careers between the ages of 7-11

The key challenges to teaching science at primary is that some teachers lack confidence and knowledge coupled with the fact that they don't have a dedicated science room and are uncertain regarding health and safety issues.

A range of climate change practical's was developed to be used in the primary classroom that could be easily replicated for secondary.

Development of Workshop

Peer Support

- Initially I wanted other Education Coordinators's to quality assure my work
- 2 of my colleagues shadowed my initial sessions - **Is anything missing?**

Primary Influencers

- PSTT Fellows - Nicola Connor & Paul Tyler
- Insight in a Primary context - **What works best for primary?**

Attendees

- Use primary teacher feedback from survey
- What improvements / changes need to be made or developed?**

COP25 in Madrid finished with lots of big issues unresolved, but an agreement was made about cutting Carbon Dioxide - a gas that causes global warming. Each nation agreed to devise a plan to cut their carbon emissions by the 2021 conference in Glasgow.

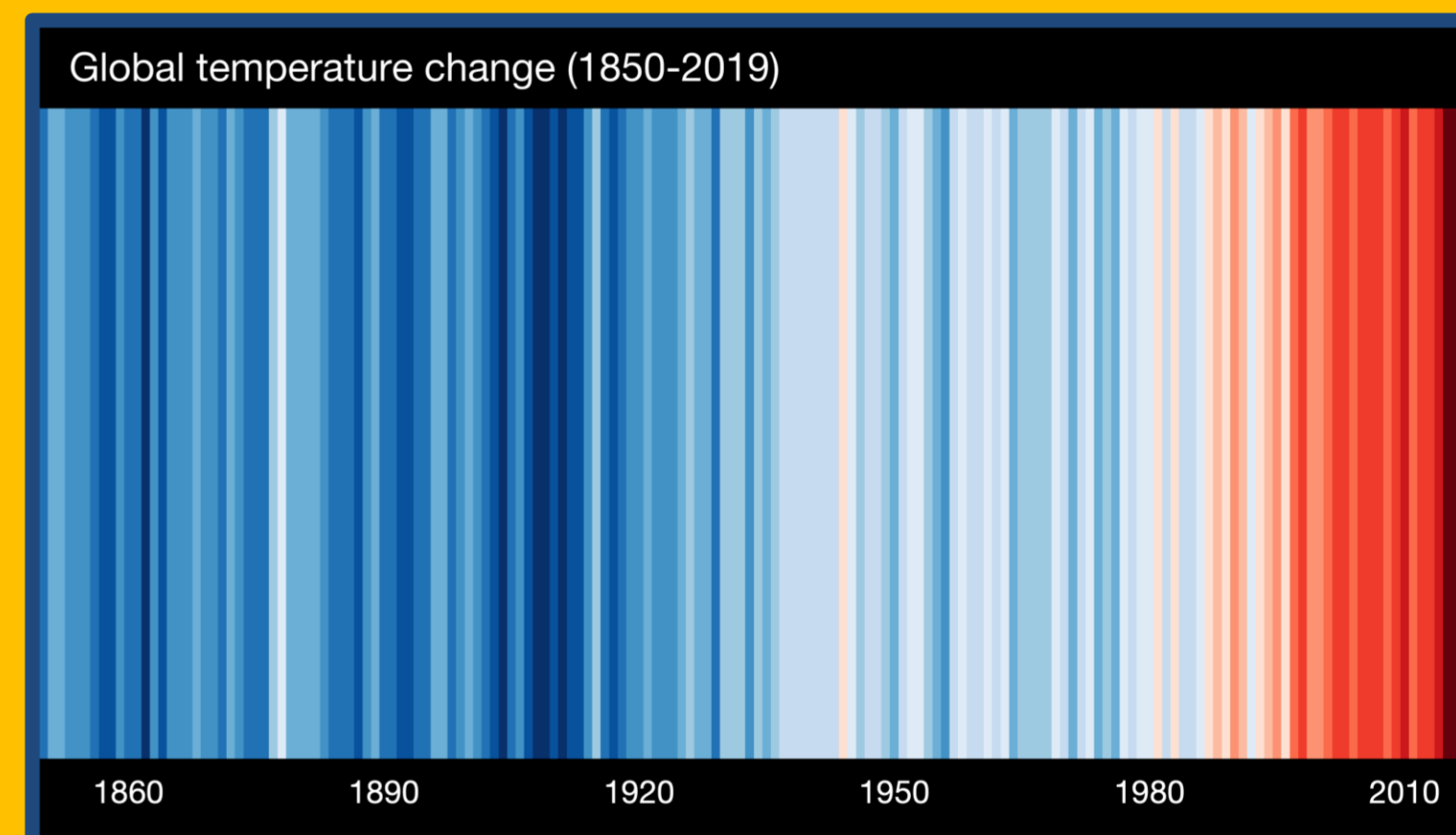
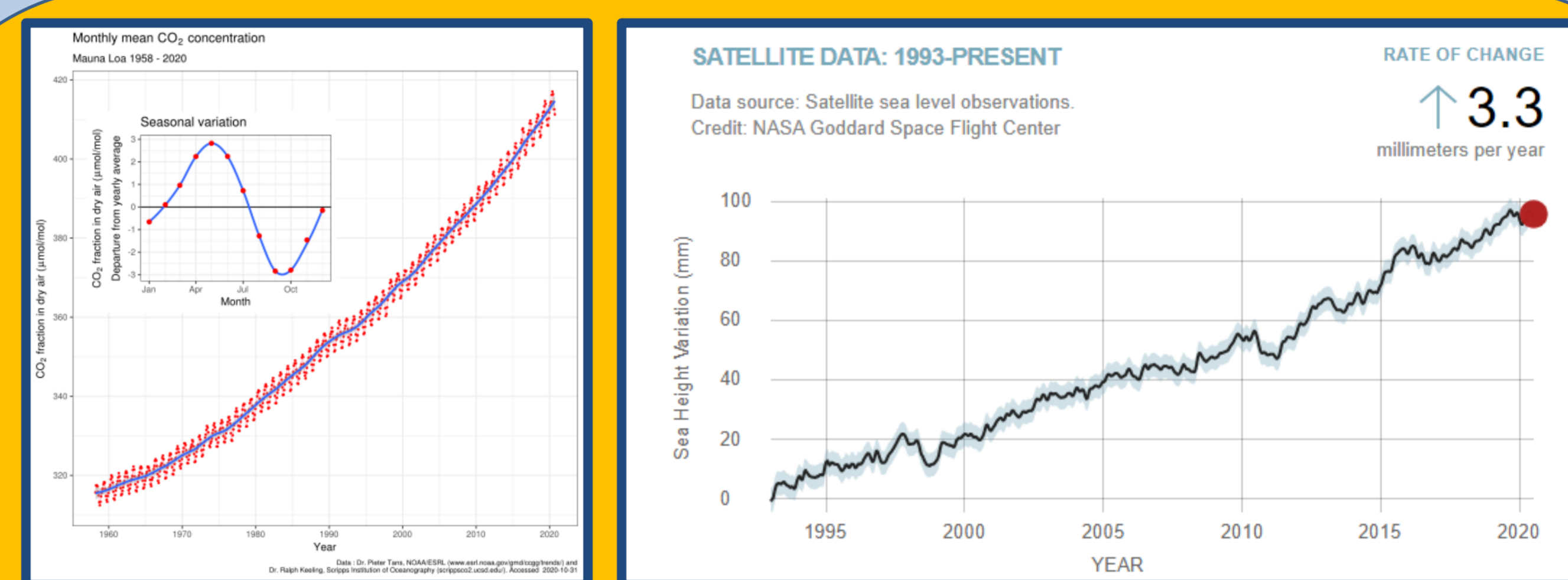
It was decided that the practical activities would focus on the impact of Carbon Dioxide

- What is Carbon Dioxide ?
- Measuring Carbon Dioxide production
- What happens when Carbon Dioxide is produced ?

Practical Activities

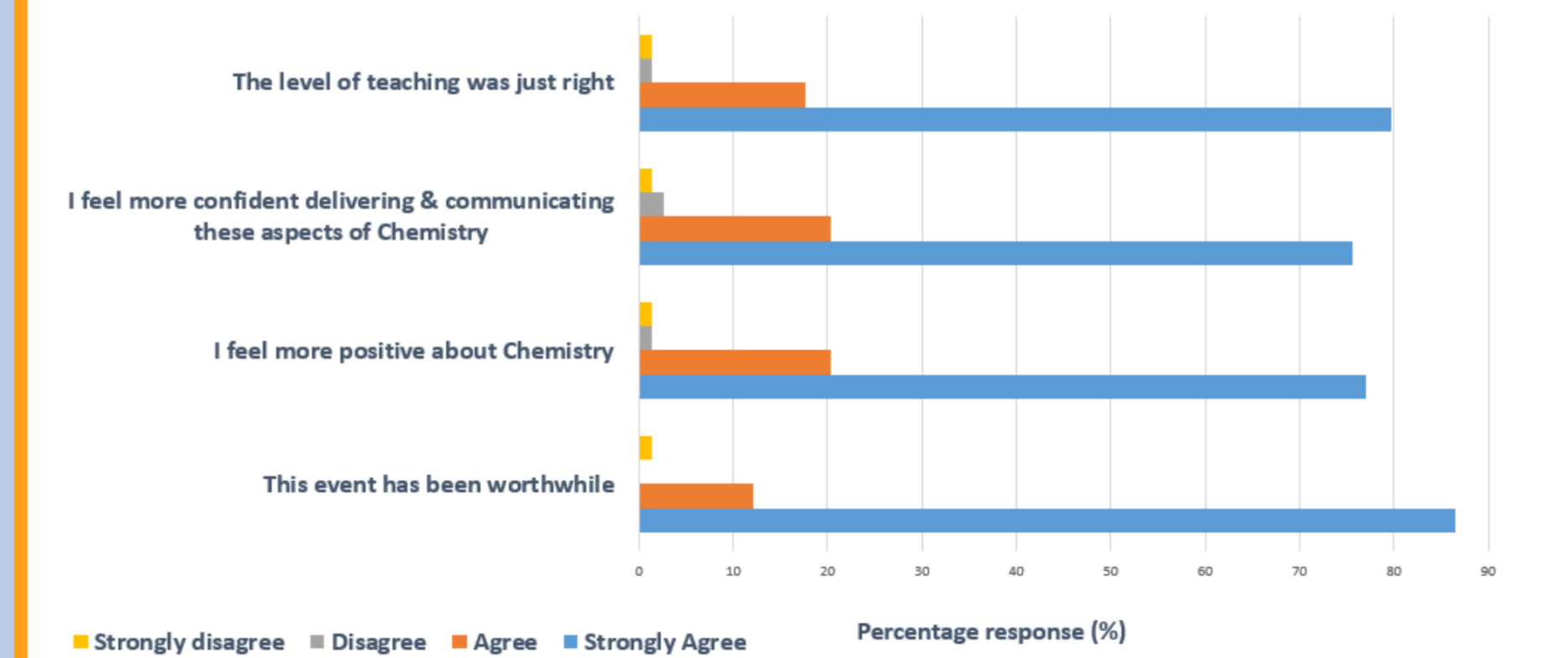
- Carbon Dioxide Fire extinguisher (**Density of a gas**)
- Measuring Carbon dioxide (**Investigation / Fair testing**)
- Carbon Dioxide as a greenhouse gas (**Testing hypothesis / Topical Science**)
- Ocean Acidification (**Carbon dioxide → Carbonic acid**)

Looking at data



Integrating data with the Education Endowment Foundation Seven Simple rules for primary science to explain and discuss the scientific data with strong links to literacy & numeracy.

Teacher Feedback



- 46% mentioned** practical ideas for teaching Climate change
- 39% mentioned** links & resources that could be used in the classroom
- 25% mentioned** the presentation style

- 69% mentioned** recommend as professional development for colleagues
- 31% mentioned** having a positive & enjoyable experience
- 8% mentioned** the importance of educating the impact of climate change



80-90% of primary teachers that attended were unaware of the RSC & support on offer. It was only through partnership work with PSTT fellows, STEM Glasgow & RAiSE officers that I was able to advertise and deliver this session to so many primary teachers in Scotland.