11–14 years

Clearing the air: atmospheric pollutants and fake news

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What is fake news?

Discuss…

What do you think it is?

Can you give any examples?

"False news stories, often of a sensational nature, created to be widely shared or distributed for the purpose of generating revenue, or promoting or discrediting a public figure, political movement, company, etc."

Source: www.dictionary.com

You can find some examples of fake news here: rsc.li/4hZeWdv

Learning objectives

1. Identify atmospheric pollutants and how they are produced.

2. Describe the impact that these pollutants have on society and the environment.

3. Create a news article to summarise your findings.

4. Evaluate sources for reliability.

The impact of fake news and misinformation

- Fake news can influence public opinion, spread panic and even affect elections.

- We need to understand fake news and misinformation to stay well-informed and make the right decisions.

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Types of fake news

- **Satire**: funny/exaggerated content that is not meant to be taken seriously (e.g. *The Onion*).

- **False connection**: headlines or visuals don't match the content.

- **Misleading content**: information that inaccurately twists an issue or individual.

- **False context**: accurate content is shared with extra incorrect information.

- **Imposter content**: reliable sources are impersonated.

- **Manipulated content**: genuine information or imagery is changed to mislead the reader.

- **Fabricated content**: information that is incorrect and not true.

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Identifying fake news

Check the following:

- **Source:** is the article from a reputable news source, institution or scientific journal? Look at the full URL to help you identify who has shared the story.

- **Author:** is the author credible with a history of accurate reporting? Do they have expertise in environmental science?

- **Bias:** does the article exhibit a particular bias or perspective that skews the information?

- **Supporting evidence:** are any other reputable sources reporting the same story? This will increase the credibility. Reliable articles will also cite scientific studies and data. You can double check these references with original research papers.

Identifying fake news *cont.*

- **Evaluate the language and tone:** does it use sensationalist language and emotional appeals?

- **Check the date:** is this a recent story? Sometimes old news stories are recycled to create misinformation.

- **Inspect the media:** are any images or videos photoshopped, manipulated or out of context? Reverse image search can help identify the original source.

- **Verify with fact checkers:** have you looked at any fact-checking websites (Snopes, FactCheck.org or PolitiFact) to check the information?

What can I do?

- **Be sceptical:** always approach news critically.

- **Spread the word:** share what you have found out about fake news with friends and family.

- **Stay 'in-the-know':** follow reliable news sources to get up-to-date and accurate information.

- **Think carefully:** be responsible with what you share and make sure the information you share is reliable.

If you follow these steps, you can help fight the spread of fake news and misinformation.

Task

Write a news article about a type of atmospheric pollution. Include the following information:

- What are the names and formulas of the pollutants?

- How are they formed?

- What impact do they have on society?

- What impact do they have on the environment?

- Can you describe these impacts using your chemical knowledge?

- What can be done to minimise these impacts?

Sentence starters

Use these sentence starters to write about the pollutants you have researched:

- This is an article about atmospheric pollution. The first pollutant I have researched is …

- The chemical formula for this pollutant is...

- This pollutant is formed when…

- This pollutant affects society because…

- This pollutant affects the environment because…

- This impact can be described using my knowledge of chemistry/science because…

- This impact on society/the environment can be minimised by…