Dr Rowena Fletcher-Wood, PhD, MChem (Hons Oxon)
Last time I asked you to think about:

1. **What** do you do?
2. **Why** is it important?
3. What are its **impacts**?
1. What do you do?
2. Why is it important?

“Share my passion and curiosity for this beautiful natural world”
3. What are its impacts?

- Make science more accessible for more people
- no more secondary pollution
- Encourage more young people to pursue science
- increase interest in geoscience!!
- give us a greater understanding of what our earth is made of and how it was made
- Encourage more girls to pursue science
- make science available for the industry
- increase awareness of the subject
- clarify complex concepts
- greener energy
- improve our environment
- change perception
- make a difference
- Education
- inspire other people to follow science, especially young girls
- yes, enlighten, dispel myths and ignorance
- Greater appreciation for science (especially in today's world!)
- Encourage people to study geoscience
- exposing a wider audience to geoscience and STEM subjects
- Empower others
- introduce new topics
- make informed choices
- Increase general scientific literacy
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next generation, curiosity and make them excited about their w

It is the responsibility of this generation to

kids are curious science=more possible breakthroughs

their everyday decision make a difference e.g. environment

Who are kids? (and why should they care?)

Our future will be their present

next generation of scientists they gonna take care of

They are our future and doesn’t have preconcepts

Open and curious.

they are going to inherit the consequences of our decisions

be in channel

the future

the future and it is their world to inherit

their future it’s a fun topic!

It might help them understand their world

It's under 18? because it's their future

kids are curious

even those who don't want to be scientists should need to understand.

our children are some of us predisposed to be scientists?

encourage kids to be curious and learn more

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Taking an age.
The right level.
Learning: an emotional journey

Emotions deeply impact attention, motivation, interest, memory...


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Treat your audience as intelligent but uninformed.
Backwards planning

Writing  Content  Impacts

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Impact length

- Easy to see impact
- A desire to do the act again
- Join a summer school
- Develop observational skills
- Making water cleaner
- Recording natural things while out in nature
- It is about building long-term awareness

Impact breadth

- Understanding of where materials come from
- Sparking interest in minerals
- Sparking curiosity about the earth
- They they want

Engagement in activities, e.g., collect trash on the beach.
How can you make writing “two way” engagement?
Language

Subtle linguistic cues


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<table>
<thead>
<tr>
<th>WORD</th>
<th>SCIENCE MEANING</th>
<th>PUBLIC MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth</td>
<td>difference in wind speed/direction</td>
<td>cut wool off of</td>
</tr>
<tr>
<td>Shear</td>
<td>planet layer between crust and core</td>
<td>important role passed from person to person</td>
</tr>
<tr>
<td>Mantle</td>
<td>outermost layer of planet</td>
<td>edge of pizza/pie</td>
</tr>
<tr>
<td>Fault</td>
<td>fracture in a rock with movement</td>
<td>responsible for accident/misfortune</td>
</tr>
<tr>
<td>Dating</td>
<td>determining age of site/artifact</td>
<td>initial stage of romantic relationship</td>
</tr>
<tr>
<td>Grade</td>
<td>gradient/slope</td>
<td>level of proficiency</td>
</tr>
<tr>
<td>Plastic</td>
<td>substance that is easily shaped/molded</td>
<td>synthetic material</td>
</tr>
<tr>
<td>Matter</td>
<td>physical substance in general</td>
<td>be of importance, have significance</td>
</tr>
<tr>
<td>Surf</td>
<td>line of foam on seashore from breaking waves</td>
<td>riding a surfboard</td>
</tr>
<tr>
<td>Shelf</td>
<td>a submarine bank</td>
<td>a surface for displaying/storing objects</td>
</tr>
<tr>
<td>Submarine</td>
<td>existing/occurring under the sea surface</td>
<td>a ship that stays submerged under water for extended periods</td>
</tr>
<tr>
<td>Current</td>
<td>water or air moving in a direction</td>
<td>belonging to the present time</td>
</tr>
<tr>
<td>Bank</td>
<td>land alongside a river/lake</td>
<td>a place where people store money</td>
</tr>
<tr>
<td>Fetch</td>
<td>distance traveled by wind/waves over water</td>
<td>go far and then bring back something/someone</td>
</tr>
<tr>
<td>Swell</td>
<td>sea movement in rolling waves that do not break</td>
<td>to become larger in size (e.g. a body part)</td>
</tr>
</tbody>
</table>

### Processes

<table>
<thead>
<tr>
<th>WORD</th>
<th>SCIENCE MEANING</th>
<th>PUBLIC MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>computer simulation</td>
<td>promotes fashion/product</td>
</tr>
<tr>
<td>Cycling</td>
<td>flow of nutrients or elements</td>
<td>riding a bicycle</td>
</tr>
<tr>
<td>Bonding</td>
<td>electrostatic attraction between atoms</td>
<td>making an emotional connection</td>
</tr>
<tr>
<td>Driver</td>
<td>influential factor</td>
<td>someone who drives a vehicle</td>
</tr>
<tr>
<td>Force</td>
<td>strength/energy of action/movement</td>
<td>make someone do something against their will</td>
</tr>
<tr>
<td>Stress</td>
<td>pressure/tension exerted on a material object</td>
<td>mental/emotional strain</td>
</tr>
<tr>
<td>Sample</td>
<td>to take a sample for analysis</td>
<td>a small part of something</td>
</tr>
<tr>
<td>Productive</td>
<td>creating organic matter through photo/chemosynthesis</td>
<td>busy and efficient</td>
</tr>
<tr>
<td>Code</td>
<td>software/computer language</td>
<td>encrypted message</td>
</tr>
</tbody>
</table>

https://blogs.agu.org/sciencecommunication/2016/10/17/watch-words-geoscience-jargon/
So I finally got around to watching some AGU talks and the auto-captions that they added are truly something.

Here is a compilation of some of the most ridiculous auto-captions I've seen so far.

**Show this thread**
Language

A challenge: can you describe your work using only

The 1000 most common words:
https://xkcd.com/simplewriter/

https://splasho.com/upgoer5/phpspellcheck/dictionaries/1000.dicin

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@RowenaFW
Reminder: Explaining niche concepts

- show, don’t tell
- model
- be wary with analogy
- be wary with rhetoric
- define terms early
- limit jargon (7 contexts)
- don’t info dump

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Debug your writing

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Next time: General public

Think about...

1. **Who** is Joe public?
2. **How** are they different from a child?
3. Why would they **care**?
Send us your writing if you would like it reviewed.

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Questions?