#MyNuclearReaction Questions and answers

Hashtags: #MyNuclearReaction, #COP27 #NetZeroNeedsNuclear

1. How many lives has nuclear energy saved?
    a. -1,000,000
    b. 0
    c. 2,000,000

2. If this gummy bear were made out of uranium, how many kilo's of coal would you have to burn to get the same amount of energy?
    a. 1kg
    b. 100kg
    c. 1,000kg (aka 1 tonne)

3. What are the top sources of low-carbon global electricity and can you estimate their percentage contribution?
    a. Hydro ~16%
    b. Nuclear ~10%
    c. Wind, solar, geothermal and biomass combined ~8%

4. True or false, there has been scientific consensus on what to do with nuclear waste for decades?
    a. True and the EU Joint Research Commission this year stated that

"There is broad scientific and technical consensus that disposal of high-level, long-lived radioactive waste in deep geologic formations is, at the state of today's knowledge, considered as an appropriate and safe means of isolating it from the biosphere for very long time scales" "Similarly, carbon capture and sequestration (CCS) technology is based on the long-term disposal of waste in geological facilities and it has been included in the taxonomy and received a positive assessment"

5. When was the first nuclear reactor on Earth?
    a. Oklo gabon 1.7 - 1.8 bn years ago, where products typically found in a nuclear reactor were found - these have not moved far in the time since then

6. Has nuclear waste got any uses?
    a. Many - it can be used to extract medical isotopes which can be used to treat patients with cancers and tumours
    b. It can be used to power space exploration through space batteries
    c. Spent fuel can be used in advanced reactors to create energy