10 Big Question: How can we reduce our reliance on fossil fuels?

Make your own spectroscope

You can see the spectra emitted by different light sources easily with your own spectroscope. Making your own spectroscope from commonly available materials is actually pretty straightforward. Live Science has a great tutorial using a CD to reflect the light. You can find the instructions and list of materials on their website:

www.livescience.com/41548-spectroscopy-science-fair-project.html

You can use your newly crafted spectroscope to look at different types of light and view their spectra. You should be careful to never look directly at the sun using the spectroscope, but you can look at sunlight reflected on a wall quite safely. Other sources of safe light to look at are different types of bulbs including street lamps, neon signs and those in a flashlight, and candlelight.

What do you notice about the different types of light? How does this reflect the way each type of light is made? (Hint: think about the materials that are generating the light.)