A globally designated day like EARTH Day (April 22nd) offers great opportunities for an organisation like CASTME , where all members can work on the same project on the same day.

Earth Day is an annual event celebrated on April 22. Worldwide, various events are held to demonstrate support for environmental protection. First celebrated in 1970, Earth Day events in more than 193 countries are now coordinated globally by the Earth Day Network(Wikipedia) Earth day was started in 1970 by a concerned USA senator who was concerned that environmental issues were not being addressed through politics or the media. In 2017, it was celebrated in 193 countries. (The focus for 2018 is ‘plastics’ which could be integrated into the following exercise, by looking at building materials & packaging.)

A suggestion for a STEM CASTME project for member schools and communities might be to investigate renewable /non-renewable resources used in building and in use in homes, schools and perhaps buildings used for work. The materials used can be recorded and documented perhaps by graphics to show which are renewable or recyclable and which can only be used once. This can be related to the sustainability of our planet.

For example, using wood to build homes and classrooms is sustainable so long as replacement trees are planted. Locally sourced bricks (not sustainable if made of clay, but sustainable if using cow dung), and buildings made from wood and thatched with straw could well be more sustainable than modern concrete ones. Electricity might be sustainable if it is from hydro-electric or geothermal sources. However, many buildings are built from stone or brick which uses up Earth resources, and concrete uses even more resource as this is from limestone and sand, or gravel mixes. Energy to power them is frequently generated from oil, gas or coal. The use of glass for windows, metal fixings sometimes aluminium, steel or chrome are generally non- renewable although may be recycled. it would be interesting for CASTME to collate this information between schools and participating countries. The question that might be discussed is ‘is it possible for humans to build sustainable homes and schools?’

Another project might be to look at early humans and their lifestyles and homes; have we really made progress or are we in danger of using up our planet’s resources? Can we remedy this? And if so, how?

There will be many questions emanating from an exercise like this which can make us more aware of the limited resources there will be for future generations unless we take more care of our Earth. Earth Day is a good day to ponder on our future through the use of STEM ideas.

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