Teaching Climate Change Youth Social Action through Maths

Key areas of maths provide opportunities to link these back to climate change and green living. Some samples are below:

Area

- Area of land needed for crop/ meat production
- Areas in school - measure biodiverse areas
- Use of examples of cities/ farming/ taming/ meat productions - portions of land
- Area of rainforest destroyed

Data Handling

- Interpreting and constructing graphs ad data (climate change linked)
- Changing habitats leads to more butterflies
- Temperature, sea level, ice
- Quadrats or hoops - estimation of wildflowers
- Collection of data over time
- percentage of materials used
- Nature and patterns
- Consider approximating the shape of a lake in order to estimate its volume. Using 3D solids, identify prisms and perform differentiated volume calculations. They can look at the change in Lake Chad over time and can perform further calculations and/or reverse calculations. Use the answers to estimate the number of fish that could live in the lake and consider the impacts that the shrinkage of Lake Chad has had on surrounding communities.
- Interpreting data over time - use of different types of graphs.

Fractions, Decimals and Percentages

- Land use as a fraction of total land
- cows, pigs, wildlife Fractions of cows, pigs, wildlife, and humans amongst total living things (biomass)
- Reduction in X linked to Y eg % reduction in meat-eating linked to litres of water saved
- % energy/waste used and saved etc

Direction

- Outdoor through maps and treasure hunts

Money

- Createa. product and sell with profit - Fairtrade
- Consumption
- Look at money saved by "greening" less paper = less money

Patterns

- Fibonacci
- Fractals
- Symmetry

Geometry

- Nature and patterns

Measuring

- Populations estimates
- Waste
- predictions