



Lesson: Lake Chad



ACTIVITY OUTLINE



In this lesson, students consider approximating the shape of a lake in order to estimate its volume.

They will name 3D solids, identify prisms and perform differentiated volume calculations.

They then look at the change of Lake Chad over time, and can perform further calculations and/or reverse calculations.

They will then use these 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.

SUPPORT worksheet: all measurements are given in km.

STANDARD worksheet: measurements are given in a mixture of units.

EXTENSION worksheet: students calculate missing lengths to produce given volume. Students are asked to give written answers about the validity of the models used and impacts on surrounding communities (cross-curricular links with Geography).



CURRICULUM OUTCOMES



Students will:-

Review 3D solids, including prisms

Review unit conversion

Calculate volume of cuboids, prisms, cones, pyramids, hemispheres

Reverse calculations to find missing lengths

Evaluate the validity of assumptions in Mathematical models

Identify implications of modifying inputs to formulae



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GLOBAL LEARNING OUTCOMES



CLIMATE ACTION



Students can name some different consequences of climate change and how these affect people, animals and plants

ZERO HUNGER



Students can explain how wider environmental issues affect access to food and water

Students can explain where people are suffering from hunger and why

SMSC/ British Values - Understanding of the consequences of our behaviour and actions

Action



Climate change is affecting people all around the world: it often impacts on food security, causing hunger, as in the case of the communities who live near Lake Chad.

Our own diets can have a big impact on our carbon footprint and one of the most effective changes we can make to cut our carbon emissions is to reduce meat consumption.

Why not try meat free Mondays, or, if you already consume little or no meat, why not get your school to go meat free one day a week?

<https://www.meatfreemondays.com/schools/>



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