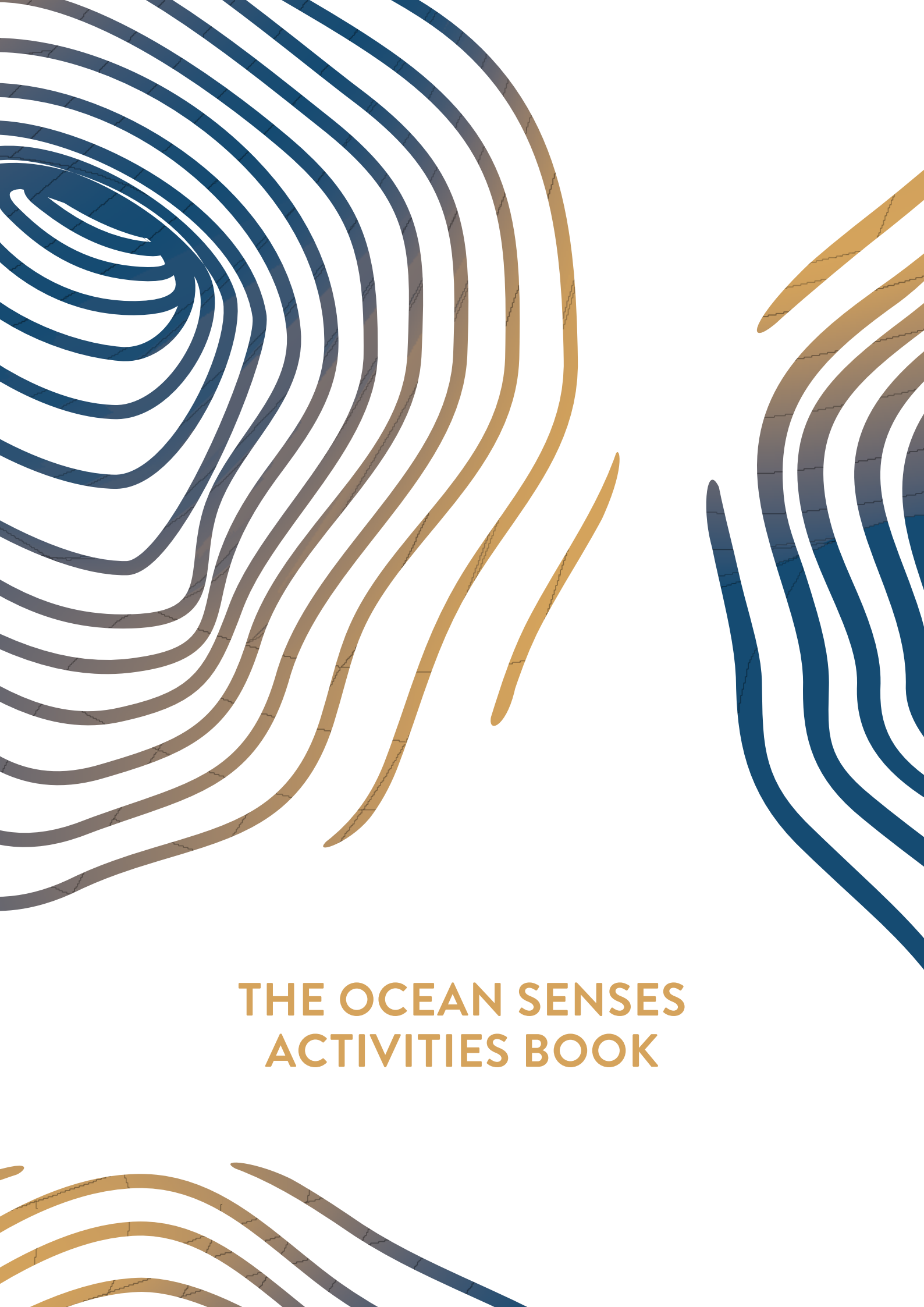

THE OCEAN SENSES ACTIVITIES BOOK

TOUCH

OCEAN SENSES
– TOUCH –

WHERE IS THE (ANCIENT) OCEAN FLOOR?

Focus:

To understand that that the ocean floor is dynamic and changes through time. Sometimes it's far away, and sometimes much closer than we think. But where is the ocean floor?

Learning objectives:

In this activity, pupils will understand that we can find ancient ocean floors on land because of tectonic activity. NB: This will require prior planning and may not be possible if your school is too far from such tectonic formations.

Key words:

Sedimentation, sedimentary rocks, tectonics, Earth history.

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IN SHORT (FOR THE TEACHER):

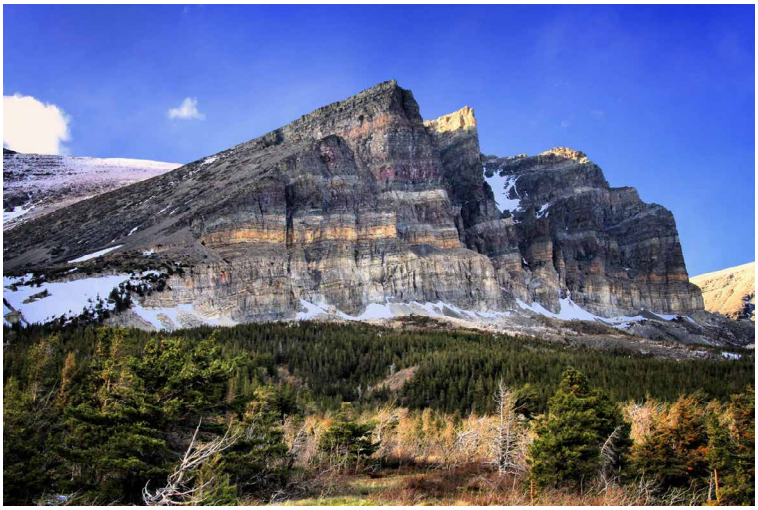
The idea is to find some examples of sedimentary rocks near your school and use these as a location for a class outing. The pupils will be able to touch and stand on or near an ancient ocean floor. You will need to investigate whether such formations are observable near your school. This experience provides the stage for you to give more information about geology and how sedimentary rocks form.

Materials:

Ideally, this is a geologic excursion activity where pupils go to an area where sedimentary rocks appear at the surface.

Teaching Time:

The amount of time will depend on the distance to the chosen location and how much time you spend investigating and discussing.



Examples of sedimentary rocks. Are there examples of sedimentary rocks near your school? The examples near your school may not be as big as mountains (Image left: Michael Dziedzic via Unsplash.com. Image right: Gary Yost via Unsplash.com)

BACKGROUND STORY:

Half of the exposed land on the earth surface is sedimentary rock. This rock is ancient ocean floor that has been uplifted through millions of years of tectonic activity.

Famous areas of land that consist of sedimentary rock that has been uplifted from the ancient ocean floor include the Dolomites, many parts of the Alpine regions, the Grand Canyon, the White Cliffs of Dover, and in the Arctic Circle, also the entire Svalbard archipelago.

Learning procedure:

Pupils are meant to move through an area with exposed sedimentary rock. You might consider challenging older pupils to investigate and find a location themselves.

They are then asked where they think the ocean floor is, and whether they think they will ever go to the ocean floor themselves.

You can include breaks and discussions during the excursion when you give information about the origin of this sedimentary rock. This can include information about processes of sedimentation, tectonic activity, and how tectonic activity has uplifted the ancient ocean floor over millions of years to shape some of the most well-known landscapes of the earth.

While pupils continue to move through the landscape, they are meant to reflect on how the ancient ocean floor supports their bodies and gait. By touching sedimentary rock, you can further encourage them to reflect on how and why the (ancient) ocean floor is in such close reach.

More information:

Geology: Introduction to Geology: Chapter 9:
https://gotbooks.miracosta.edu/geology/chapter9.html