Interdisciplinary learning
ODL Teacher School
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What’s a tangram?

Tangram means "seven boards of skill". It is a dissection puzzle consisting of seven flat shapes, called *tans*, which are put together to form shapes. The objective of the puzzle is to form a specific shape using all seven pieces, which may not overlap.
Challenge #1

Can you make a square using all 6 tans?
What are the common characteristics of the tangrams?

- Uniform color
- Same shape
- Similar tans
Now look closer at the tans. Is there anything particular about them?
Challenge #2

The tans contain a hidden message.

Try to rearrange them to find out what it is.

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Use the shape of the tangram as a guide to put the puzzle together.

Look at the back of each tan for further help!
What is the hidden message?
Reflecting on the activity

Which is more appealing to you, the separate tangrams or the puzzle?

How did you work in order to make the tangrams?

Is there a common scheme that helped build both the tangrams and the final puzzle?

How did you work in order to uncover the hidden message?
The analogy

Science Concepts  Science Disciplines

The Big Ideas of Science

Science as a whole

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The Big Ideas of Science
A set of cross-cutting scientific concepts that describe the world around us and allow us to conceive the connection between different natural phenomena.
Energy can neither be created nor destroyed.

There are four fundamental interactions/forces in nature.

Earth is a very small part of the universe.

All matter in the Universe is made of very small particles.

In very small scales our world is subjected to the laws of quantum mechanics.

Evolution is the basis for both the unity of life and the biodiversity of organisms.

Cells are the fundamental unit of life.

Earth is a system of systems which influences and is influenced by life on the planet.
Interdisciplinary learning

Teachers collaboration can help promote interdisciplinary learning

How?

What do my colleagues teach in their class?

Is there any common ground between what we teach?

How can we take advantage of overlapping and common concepts?
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Thank you

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