



Co-funded by the
Erasmus+ Programme
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Interdisciplinary learning

ODL Teacher School

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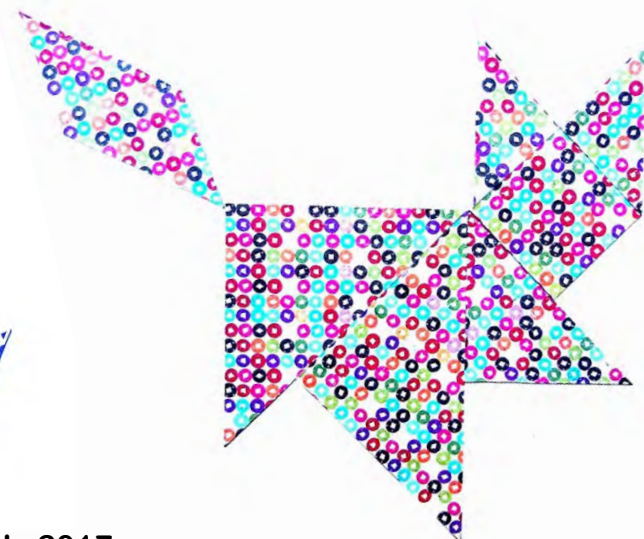


What's a tangram?



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.

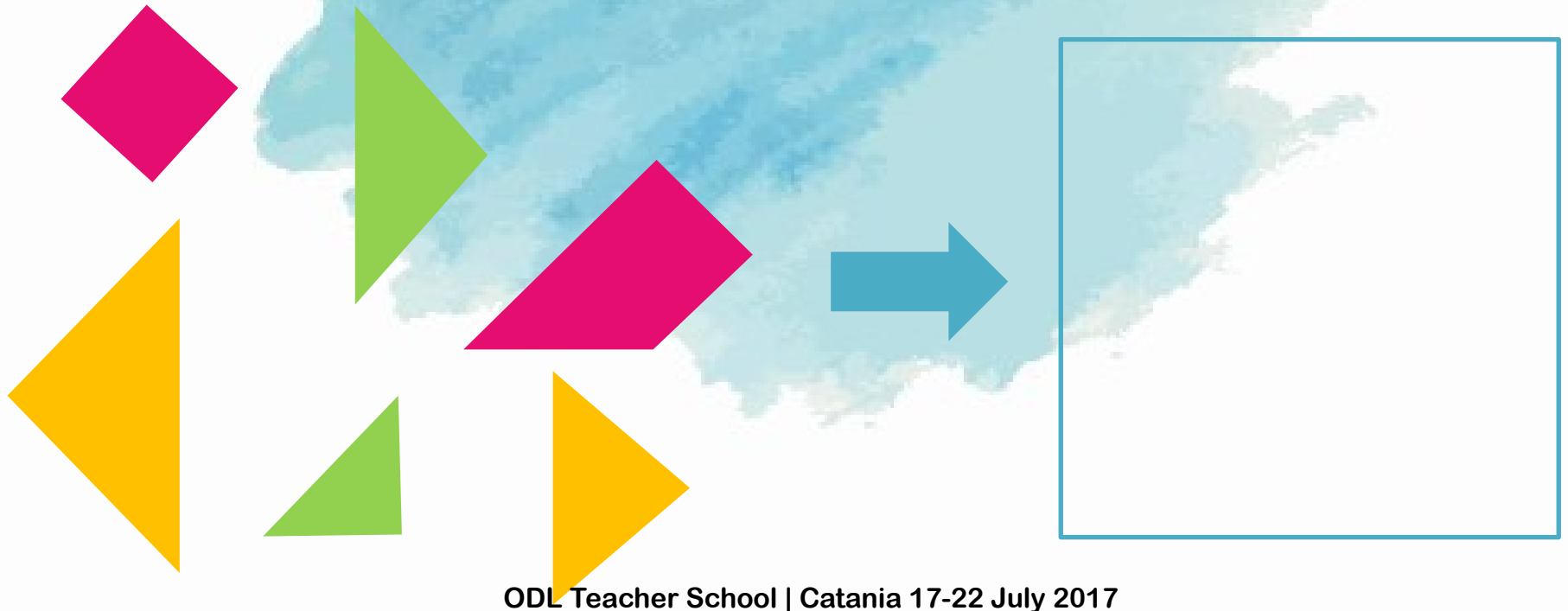






Challenge #1

**Can you make a square
using all 6 tans?**





What are the common characteristics of the tangrams?



Uniform
color

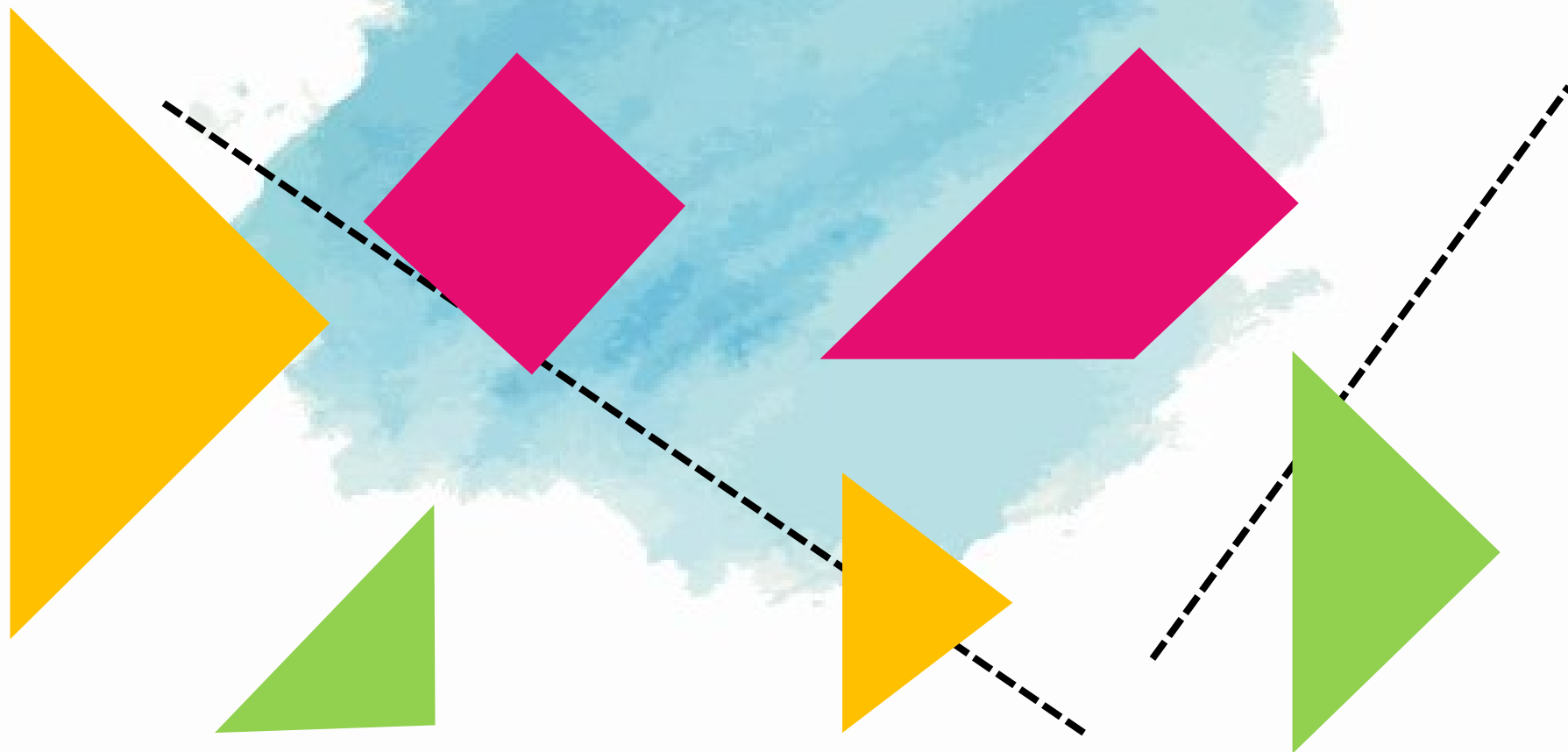


Same
shape

Similar
tans



Now look closer at the tans.
Is there anything particular about
them?





Challenge #2

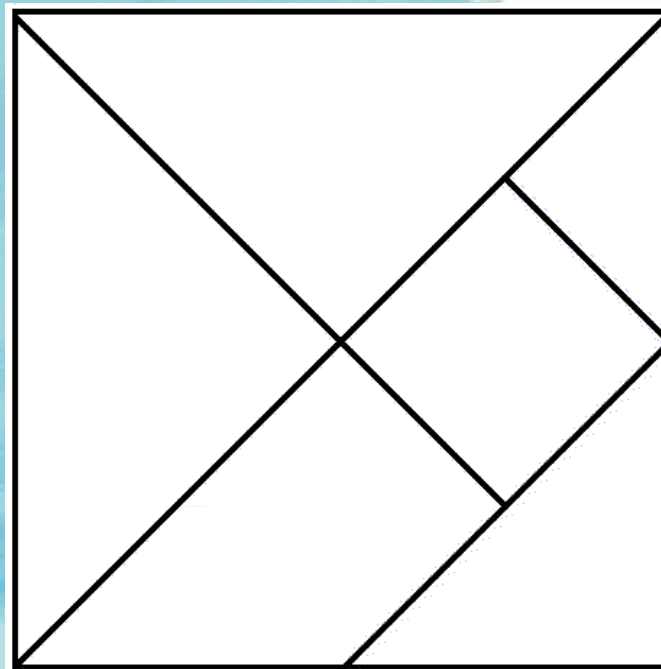
The tans contain a hidden
message

Try to rearrange them to
find out what it is





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



Look at the back of each tan for further help!

[illegible]



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?

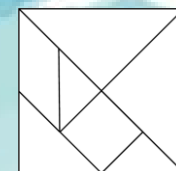
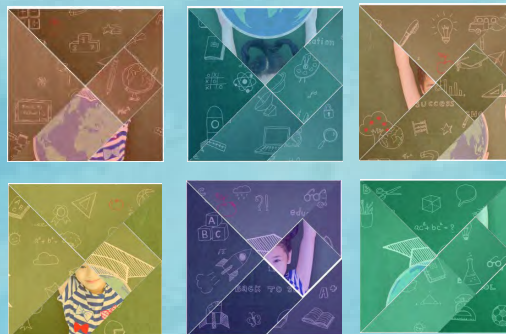
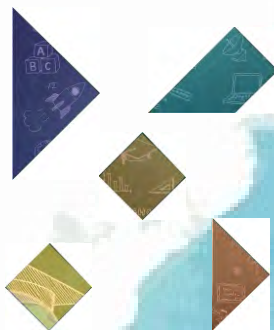
How did you work in order to uncover the hidden message?

The analogy

Science Concepts

Science Disciplines

The Big Ideas of Science



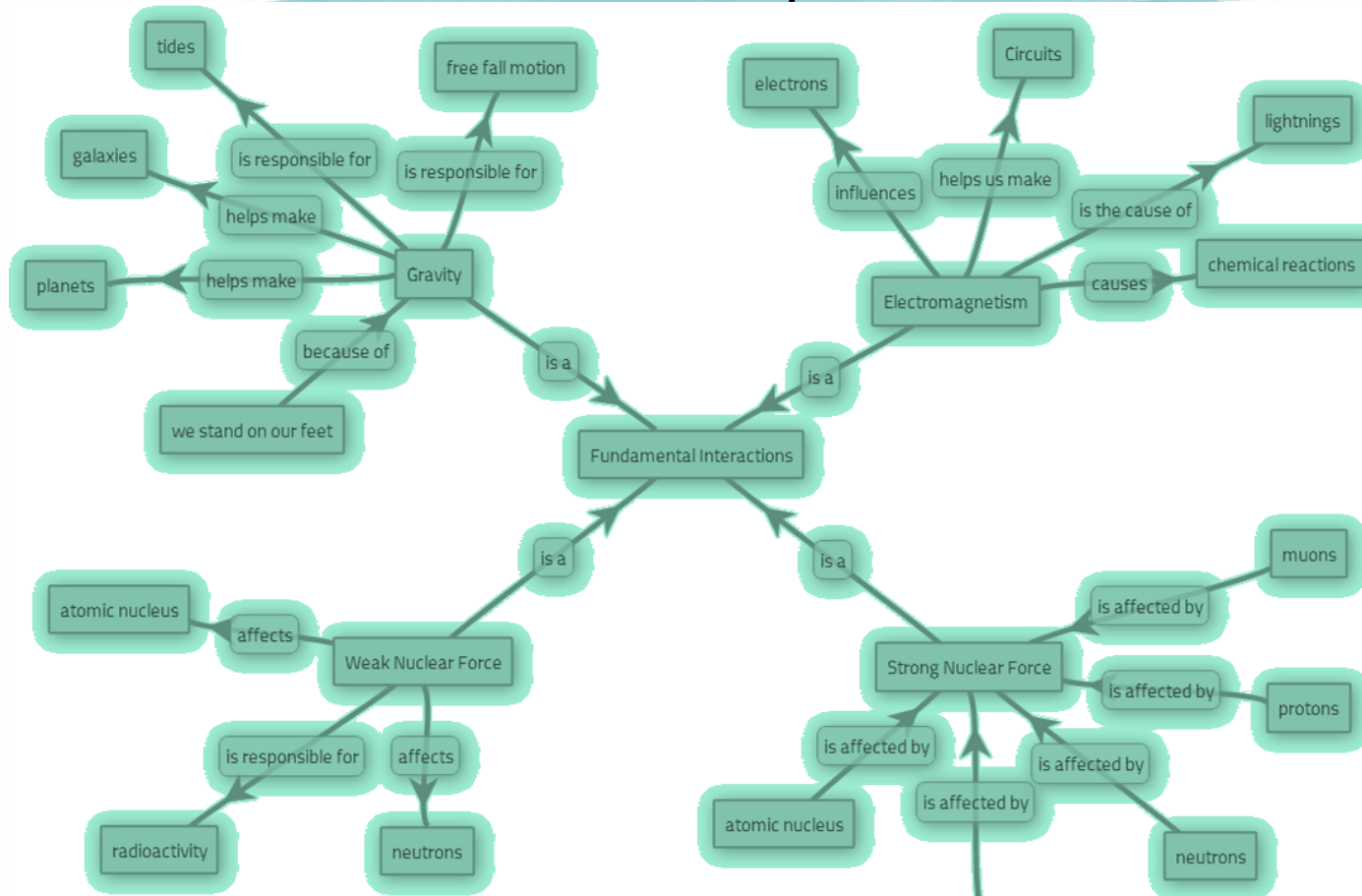
Science as a whole





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.

[See more](#)



There are four fundamental interactions/forces in nature.

[See more](#)



Earth is a very small part of the universe.

[See more](#)



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

[See more](#)



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

[See more](#)



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

[See more](#)



Cells are the fundamental unit of life.

[See more](#)



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

[See more](#)

COSMOS

PHYSICS

concepts

concepts

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CHEMISTRY

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BIOLOGY

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ENVIRONMENT

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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

A stylized illustration of a green leafy branch, possibly a laurel wreath, positioned to the right of the word 'you'.

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