ONCE UPON A STEAM

STEAM
in storytelling

**by the Students and Teachers
of the eTwinning project
Once upon a STEAM**

eTwinning

Dear Reader,

The idea of a project came from our dear friend Iolanda Moya Serra, our Spanish partner in many successful eTwinning projects. Unfortunately, she could not participate in this one, but we hope we managed to turn her idea into something stunning.

The authors of this booklet are the children and their teachers from Poland, Slovakia, and Greece (two groups).

We aimed to make a booklet with our ideas on implementing STEAM methodology into storytelling. The ideas are based on popular stories.
We hope teachers can use it in preschools to add a pinch of creativity, a drop of critical thinking skills, and a spoon of inquiry-based learning into storytelling.

Enjoy :-)

Magda, Litsa, Andrea and Kiki

INTRODUCTION

All the stories in this booklet are popular children's stories. The STEAM elements/STEAM questions or problems were always invented by the teachers.
The solutions were always proposed by the children in collaboration.

Each chapter includes one story and STEAM activity described step by step while at the same time giving room for creativity :-)

Our intention in this project was to show the children the process of solving problems, allowing them to make mistakes and decide.

We blurred children's faces and covered links to the videos (internet safety), however, this does not affect the clarity of examples.

Story 1
the very hungry caterpillar by eric carle

The STEAM question we asked in this story was about a COCOON. We read the story with our Pupils until the moment the caterpillar grew very big. Then it turned out it could not make a COCOON!!!

At this point, we asked our Pupils:
-**How can we help?**
-**What to do?**

The children's idea was to make a cocoon, so we made a mind map together (popplet.com):

unfortunately QR code with popplet link does not work on phones, so the mindmap was copied into canva and shared here this way.
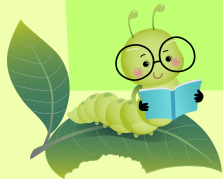
Oh No! I can't make a cocoon!

Now the best part! STEAM investigations!

Our pupils voted online (surveymonkey.com) for the COCOON-making material they thought was the best (of course giving arguments). Then we shared the four most-voted materials among our partner groups and made the cocoons. Inside each cocoon, we put a hard-boiled egg. Then, during an online meeting, each group dropped their cocoon from the same height and we all examined the hard-boiled eggs inside :-)

ARMENIA

GREEK 2

POLAND NOT BROKEN

GREEK 1

SLOVAKIA NOT BROKEN

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ARMENIA

GREEK 2

POLAND NOT BROKEN

GREEK 1

SLOVAKIA

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This was our way of doing it

What is your plan?

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Materials:

fabrics, hard-boiled eggs...

Tools:

surveymonkey.com, popplet.com

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Story 2
father christmas needs a wee!
by nicholas allan

The STEAM question we asked in this story was about the SCIENCE of MIXING FLAVOURS. As we were 5 partners, we chose house number five and hid the drinks prepared for Father Christmas at this house. We read the story with our Pupils until we reached house number five. Then it turned out there were NO DRINKS for Father Christmas there!

At this point, we asked our Pupils:

–How can we help?

–What to do?

The children's idea was to prepare winter drinks for Father Christmas themselves.

Ho ho ho! Oh no! There are no drinks at number five for me...and I'm sooo thirsty!

Now the best part! The Science of Mixing Flavours – Drinks Preparations!

Our Pupils decided what sort of drink they would like to make. Then, we prepared all the ingredients. We were adding them one by one and checking how the smell and taste changed with the additions of different ingredients :-) Then we shared our recipes in the collaborative booklet – children took it home and prepared drinks with their parents! It was delicious!

INGREDIENTS
1l hot water
2 fruit tea bags

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This was our way of doing it.

What is your plan?

What other way can you implement STEAM in this story?

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Materials:

Tools:

ingredients for drinks

canva.com

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Story 3
the colour monster by anna llenas

The STEAM question we asked in this story was about the ART of EMOTIONS, reaching across the barriers of language, culture, and background to understand our feelings.

We read the book until the moment when the girl shows the jars to put feelings into and OBSERVE them.

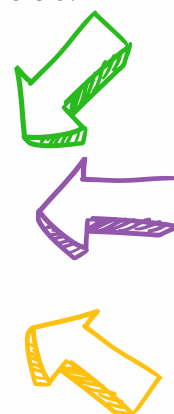At this point, we asked our Pupils:

-How do you know that you feel happy/scared/angry/calm/sad?
and later:
-How can you deal with difficult feelings?
-How can you let others know you are happy?

We made a collaborative mind map with all the ideas:

Now the best part! The Art of Emotions! A little bit of DRAMA :-)

1. Each group prepared one or two jars (paper and pencils/plasticine, etc.) and uploaded photos to Thinglink.com
2. Together with our Pupils, we made short videos depicting their ideas from the mind map and put them into interactive images* of jars (thinglink.com).
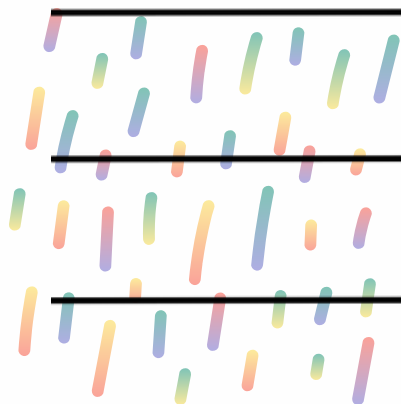3. We also made a collaborative booklet for the children to take home and share with their families.

*little dots on the jars are the links to the videos inserted in Thinglink.com to make interactive images

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This was our way of doing it.

What is your plan?

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Materials:

our bodies and minds

Tools:

Thinglink.com, canva.com

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Story 4
we're going on a bear hunt
by michael rosen and helen oxenbury

The STEAM question we asked in this story was about MATHEMATICS and CODING. We read the story with our Pupils until the family met the bear in the cave and decided to escape... BUT it turned out they lost their way home!

At this point, we asked our Pupils:
-How can we find our way when we get lost?

We made a collaborative mind map with all the ideas:

Help!!! We lost our way home!

Now the best part - CODING the way out on a map!

1. We took the most common answer from the mind map – use a map!
2. Each group prepared a map with QR codes. In QR codes we linked videos with the places we had to go through during our journey home. For example, a video of a street with the children saying "Oh no! A busy busy street! We can't go over it, we can't go under it, we have to go through it! Left/right/left, free, let's go!"
3. Each group prepared instructions – arrows showing the way from the START to the following fields with QR codes (without showing the order of fields). The last QR field was HOME.
4. We exchanged the maps and following instructions we got home :-)
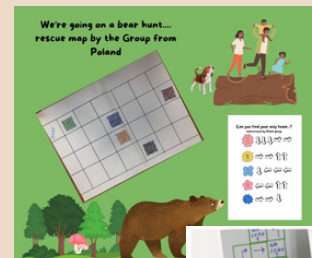
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This was our way of doing it.

What is your plan?

What other way can you implement STEAM in this story?

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Materials:

artefacts neded to make scenes for videos

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Tools:

qrcode-monkey.com

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Story 5
jack and the beanstalk
by joseph jacobs

The STEAM question we asked in this story was about SCIENCE and ENGINEERING of PLANTING BEANS. We read the story with our Pupils until Jack's Mum was angry that he had exchanged the cow for the beans. Then we changed the story by having Jack's Mum say: "Ok, let's plant the beans then, but how?"

At this point, we asked our Pupils:
-How can we plant beans?

We made a collaborative mind map with all the ideas:

Ok Jack! Let's plant these beans... but how?

Now the best part - PLANTING BEANS!

Our pupils voted online (surveymonkey.com) for the way of planting beans they thought was the best (giving arguments). Then we shared the four most-voted ways among our partner groups. We planted the beans together during online meetings and PREDICTED each other's results. We illustrated this process in linoit.com

Then we observed the beans to see if the predictions were right and which way of planting them was the most succesful and why.

We also sent beans to each other and planted them at our preschools and at homes :-)

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This was our way of doing it.

What is your plan?

What other way can you implement STEAM in this story?

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Materials: **Tools:**

beans, pots, other materials for planting   linoit.com, eTwinning online
_____   meeting tool
accoriding to childrens' ideas   _____

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Enjoy and thank you :-)