

4.1 Escape room activity based on the story of The Stork and the Fox

This two-hour STEAM program for 2nd graders uses an "escape room" format to strengthen their resilience by managing unfamiliar tasks and uncertainty without immediate teacher feedback through the classic story of the Stork and the Fox. Working in teams, students solve real-world problems like measuring weights for the fox's lunch and using chopsticks to mimic how a stork eats. The activities develop fine motor skills and logical thinking through tasks like folding paper airplanes and decoding Roman numeral "invitations." Students must practice flexibility and resilience as they collect secret codes without immediate help, relying on their teammates to move forward. Collaborative problem-solving develops social-emotional skills, requiring students to listen, resolve disagreements, and support peers who get stuck. The final digital "code entry" phase fosters critical thinking and self-reflection as teams evaluate their own cooperation and strategy for future challenges.

Basic Information Sheet

Age group	Student number	Duration	Number of stages	Subjects connection and relevance
2 nd grade	One class (max. 30 students)	120 - 140 minutes	3 stages	mathematics, environmental studies, literature, design and technology, visual arts

STEAM Event Summary

Students work independently in groups to solve various tasks. Through engaging activities, they collect codes, which they enter into an online platform (Genially) to unlock and discover the story of The Stork and the Fox.

SPIRIT Skill Focus

- Curiosity, sense of wonder and openness
- Creativity
- Problem-solving
- Emotional awareness, regulation and communication
- Flexibility
- Resilience



National curriculum Link and Objectives

- Sorting and counting elements in sets; recognizing Roman numerals; comparing the weight of objects through measurement; grouping numbers based on place value
- Reading comprehension, developing the ability to identify key information, alphabetizing words
- Developing fine motor skills; folding paper based on origami symbols
- Developing cooperation skills through group activities
- Identifying body parts of animals and their role in human nutrition
- Enhancing problem-solving skills, cooperation, and attention

Real-world STEAM Connection and Problem definition

During the task series, the children encounter and solve real-life problems related to the story, covering areas of science, technology, engineering, art, and mathematics (STEAM). The challenges connected to the characters of the stork and the fox - such as measuring objects, counting, paper folding, or observing – are activities that help the children learn through experience while developing their fine motor skills, problem-solving thinking, and teamwork. Throughout the tasks, the children learn to recognize and handle unexpected difficulties, adapt flexibly to changing situations, and support each other in achieving a common goal.

This comprehensive approach provides an opportunity for learners not only to acquire knowledge but also to develop their personal abilities and social skills, which are essential for successful functioning in real life.

Materials at a Glance

- Task sheet
- Wide-mouth 0.5-liter plastic bottles, Chinese chopsticks bound with rubber bands at one end, and 5–10 cm pieces of yarn (each pair receives one set).
- Balance scale with clothespins at the ends / coat hanger; several paper bags of varying weights, each labelled with a different number.
- Task sheet is cut into as many pieces as there are team members, coloured pencils.
- One A4 sheet of paper per student and a printed guide for the folding steps.
- Printed pictures of animals, one set per team.
- Computer, internet

Indoor/Outdoor and Classroom layout

It is recommended that students complete the tasks independently in a familiar environment appropriate to their age. With the support of older students or adults, the activity can also be carried out at an external location. A computer is required to complete the final stage.

Notes on Research-based approach and integration

The tasks are designed to promote critical thinking and collaborative problem-solving among students. Each activity requires students to independently identify, analyse, discuss, and resolve challenges, reflecting authentic inquiry-based learning principles. The interdisciplinary nature of the tasks allows learners with diverse interests and abilities to engage meaningfully, supporting differentiated instruction. Through group discussions in the final task, students consolidate their understanding and share solutions, fostering communication skills and reinforcing integrated learning across subjects.

Lesson Flow Overview (linked to details below)

Stage	Title	Brief Description	SPIRIT Skills	Duration	Link to Details
1st	Preparation and Warm-up	Preparation phase: forming groups and providing instructions - Forming teams - Warm-up and motivation: group discussion in the classroom - Distributing task sheets	Curiosity, sense of wonder and openness	15 minutes	STAGE 1 – Preparation and Warm-up
2nd	Escape Room - Task solving	In this stage, students work in teams to complete a variety of unfamiliar tasks. - Eat like a stork! - Using chopsticks to pick up and count pieces of string from plastic bottles - Find the fox's lunch! - Comparing the weight of objects through measurement - When is the birthday party? - Decoding the time using recognition of Roman numerals - Send the invitation by airplane! - Folding paper airplanes based on origami symbols	- Creativity - Problem-solving - Emotional awareness, regulation and communication - Flexibility - Resilience	5 x 15 - 20 minutes (it is advisable)	STAGE 2 – Escape Room - Task solving

		Which animals were invited to the party? - Identifying four-legged animals from pictures.			
3rd	Task Discussion and Activity Closure	Entering codes into the Genially platform, evaluating the group work together. - The teams gather in the classroom. After discussing the tasks, they must enter the codes into a Genially task. If the code is correct, they can watch the animated video. - Next, there is a discussion about the story and the characters' traits. - Each group evaluates their teamwork, sharing requests and advice with one another based on the activity log.	Curiosity, sense of wonder and openness	20-25 minutes	STAGE 3 – Task Discussion and Activity Closure

Tips and Tricks for dealing with challenges (for the whole STEAM program)

- The stations can be set up in one room if we don't want to lose sight of the students, but, if possible, let them move independently. The descriptions of the stations are clear, but we can also phrase them mysteriously.

Difficulty level tailoring notes

We can make the tasks more challenging, for example, by requiring the comparison of the weights of multiple objects; by choosing more difficult folding; or by pre-writing the solution on the sheets in a way that the number only becomes clear after folding the paper airplane.

STEAM Program Debriefing and Reflection Questions

- Which activity did you like the most? Why?
- What was the hardest part for you? Why?
- What advice would you give your classmates before doing a similar activity?
- What was your favourite moment of the day?
- Which task was the biggest challenge for you? How did you solve it?
- Did you learn anything about yourself today? For example, how do you react when something is difficult?
- How did it feel to work with others when you didn't agree?
- If you could do today again, is there anything you would try to do differently?
- What is something new you learned from the others?
- How will you use what you learned today the next time you get a difficult task?



4.1.2. Stage details and Activities Flow

STAGE 1 – Preparation and Warm-up

How does this develop particular SPIRIT skills

Forming teams and having a group discussion about the tasks helps the children prepare for unexpected situations and adapt to changing circumstances. During the warm-up, students' resilience is also strengthened, as they understand that by supporting each other, they can more easily solve new and challenging tasks together. Distributing the task sheets provides a structured framework that supports independent and disciplined work.

What do we want to achieve regarding SPIRIT skill development (student understanding and/or behaviour)?

The activity aims to enable students to respond flexibly to unexpected situations and effectively adapt to changing circumstances. It is important that they learn how to face challenges through collaboration and mutual support, thereby strengthening their resilience. Structured frameworks, such as using task sheets, promote independent and disciplined work, contributing to the development of students' self-confidence and perseverance. As a result, students not only improve their skills but also develop a positive attitude toward problem-solving and teamwork.

Academic/Curriculum Objective connection

Reading comprehension and key information identification development

Materials and tools needed for implementation

Task sheet

Preparation notes

The storyline of the activity: The stork and the fox are organizing a birthday party, and we have been invited too. To enter the party, we must overcome various obstacles and solve the code needed for entry. If the students obtain the code, they will also get to learn the story of the stork and the fox.

Guided Questions

- How did you feel when you found out who your teammate would be?
- What did you do to get along well with your new teammates?
- Was there anything that made you feel a little unsure or nervous? What did you do then?
- How can we help each other if something unexpected happens?
- What should you do if you are having trouble solving the task?
- Is there any station on the task sheet that you don't know?

Stage Debriefing Questions (Optional)

- What was the best thing about forming groups?
- How did you feel when you talked in your team for the first time?
- What did you learn about how to be a good teammate?
- How can we help each other when we face a difficult situation?

Tips and Tricks for dealing with stage challenges

Ways to form groups:

- Random: Code sheets are placed in sealed envelopes, and each participant draws one. The colour of the code sheet determines which team they join. In this case, we cannot influence the composition of the teams, which may cause difficulties during collaboration.
- Directed: We distribute the code sheets by name.
- For each station, students from higher grades can be selected to explain the tasks and assist the teams. It is important that the helpers pay attention to when intervention is needed and when it is better to let the teams solve problems independently.
- It is advisable to discuss the basic rules of cooperation with the groups, such as attentive listening and supporting each other.

STAGE 2 – Escape Room – Task solving

How does this develop particular SPIRIT skills

In this stage, students work in teams to complete a variety of unfamiliar tasks. They must flexibly adapt to changes in locations, task types, and unexpected situations, as well as to each other's ways of thinking and working. They do not receive immediate feedback on whether their solutions are correct, so they have to rely on their own judgment, perseverance, and the support of their teammates. This develops resilience by helping them learn to manage uncertainty and keep going even without instant confirmation. Flexibility is strengthened as they continuously adjust to the challenges of the tasks, the situations, and working together as a team.

What do we want to achieve regarding SPIRIT skill development (student understanding and/or behaviour)?

The goal is to help students become more resilient by learning how to manage uncertainty, work through challenges without immediate feedback, and rely on their team for support. Through unfamiliar and varied tasks, they develop flexibility by adjusting their thinking, behaviour, and strategies in response to new situations. By working collaboratively in a dynamic setting, students gain confidence in their problem-solving abilities, learn to stay calm in unexpected situations, and become more open to change and cooperation.

Academic/Curriculum Objective connection

- Sorting and counting elements in sets; recognizing Roman numerals; comparing object weights through measurement; grouping numbers by place value
- Developing reading comprehension and key information identification; alphabetizing words
- Developing fine motor skills; folding paper based on origami symbols
- Identifying animal body parts and understanding their role in human nutrition
- Developing problem-solving thinking, cooperation, and attention.

Materials and tools needed for implementation

- Wide-mouth 0.5-liter plastic bottles, Chinese chopsticks bound with rubber bands at one end, and 5–10 cm pieces of yarn (each pair receives one set).
- Balance scale with clothespins at the ends / coat hanger; several paper bags of varying weights, each labelled with a different number.
- Task sheet cut into as many pieces as there are team members, coloured pencils.
- One A4 sheet of paper per student and a printed guide for the folding steps.
- Printed pictures of animals, one set per team

Preparation notes

The tasks and their related background information must be printed and displayed at each station.

Guided Questions

- What do you do when you don't know what to do next?
- How do you help each other when someone gets stuck?
- What is the hardest part of this task, and how do you try to solve it?

Stage Debriefing Questions (Optional)

- What happened when the task was different from what you expected?
- What did you do when you didn't know what the next step was?
- How did you help each other when someone got stuck?
- What was the hardest part of the task, and how did you solve it?

Tips and Tricks for dealing with stage challenges

It is important for the teams to coordinate their solutions and discuss their experiences. It is advisable to provide filler activities for waiting times, such as animal-themed colouring sheets. It is helpful to clarify in advance who they can ask for help in case of disputes or difficulties. Support can be given in more challenging situations, for example with knowledge of Roman numerals or the alphabet. Additionally, it is important to pay attention to when it is necessary to support independent problem-solving and when it is better to intervene.

STAGE 3 – Task Discussion and Activity Closure

How does this develop particular SPIRIT skills

During the discussion, students can share their experiences related to the tasks and how they solved them. This supports the development of resilience by giving them the opportunity to recognize how they dealt with difficulties, uncertainties, or failures. Reflecting on the experiences gained during the problem-solving process strengthens their self-confidence and perseverance. Flexibility is developed as children listen to each other's stories, realize that there are different ways to approach a problem, and learn how to adapt to others during future group work. Giving and receiving advice and feedback also strengthens empathy and collaboration skills.

What do we want to achieve regarding SPIRIT skill development (student understanding and/or behaviour)?

The aim of the discussion is to help students become aware of how they experienced working together on the tasks, what strategies they used, and how they supported each other when facing difficulties. This is intended to foster the development of their resilience - that is, their ability to cope with uncertainty and challenges. It is important for them to recognize that making mistakes is allowed, and that we can learn from them.

In addition, their flexibility is also strengthened as they listen to each other's experiences, become open to different approaches, and learn how to adapt to differences that arise during teamwork. The goal is to strengthen students' self-reflection, improve their approach to challenges and cooperation, and help them respond more confidently to new or difficult situations.

Academic/Curriculum Objective connection

Reading comprehension and key information identification development.

Materials and tools needed for implementation

Computer, internet

Preparation notes

The story is available on the internet in multiple languages. The Genially activity can be edited and reused after registration. It is also possible to change the language.

Guided Questions

- Which character would you like to be friends with? Why?
- Did you invite anyone to a birthday party? How did you prepare for it?
- How did you feel when you faced difficulties during the tasks?
- What did you do if you didn't know the solution right away?
- Was there a time when you had to change your plan? How did you decide that?
- How did you react if someone thought or did the task differently than you?

Stage Debriefing Questions (Optional)

- What was the most important thing you learned about working together?
- How did you help each other to be successful as a team?
- How did it feel when you managed to get out of a difficult situation?
- What happened when the task was different from what you expected?
- What do you think you can do next time to adapt even better if a new challenge comes?

Tips and Tricks for dealing with stage challenges

- It is worth spending time discussing the task solutions and the ideas behind them. It is important that students feel safe during the conversation, so creating a supportive and accepting atmosphere is recommended. They should be encouraged to openly share their feelings and experiences, even if these sometimes involve difficulties or uncertainties. It is good to establish a rule within the group that everyone is listened to and opinions are respected. If disagreements or different viewpoints arise, it is helpful to discuss them together and emphasize that diverse thinking strengthens the team. It is also beneficial if the teacher acts as a moderator, guiding the conversation towards positive experiences and how to learn and grow from challenges.

Annexes

Pilot implementation (detailed example with lesson/activity plan), attachments

Escape Room Activity Based on the Story of The Stork and the Fox

(The story can be found online in many languages and versions. For example, in English: <https://www.youtube.com/watch?v=7n538d6rHhE>)

The activity takes place on school grounds. Since the children are in a familiar environment, it is enough to name the locations, but this can also be supported with a simple map. Helpers can be invited from upper grades. Each team starts at a different station. At the end, the codes must be entered in the correct order as indicated on the code sheet.

Children should have a pencil case with pencils and pens ready!

Schedule:

Group formation and motivation: 15 minutes

Task solving: 85 minutes

Closure: 20 minutes

Team Formation: with colours (red, yellow, blue, green, white)

A) Random: The code sheets are placed in sealed envelopes. Each student draws one, and the colour of the code sheet determines their team. In this case, the composition of the teams cannot be influenced, which may present challenges during collaborative work.

B) Guided: The code sheets are distributed by the teacher according to the students' names

Route sheet			
Station	Location	Received code	How did you feel during this task? Color the appropriate symbol!
1.	school canteen		  
2.	library		  
3.	gym		  
4.	small yard		  
5.	reception		  

If you have completed the tasks, please come back to the classroom!

Stations:

1. Eat like the stork!

Subject Integration: Environmental Studies, Mathematics

Materials: Half-liter plastic bottles with wider mouths, Chinese chopsticks tied together at the end with a rubber band, 5–10 cm long pieces of yarn. It is recommended that each pair receives one set.

Task: The stork is a wading bird. With its long beak, it cleverly picks up small animals: insects, beetles, toads, mice, voles, lizards, snakes. In the story, it eats lunch from a bottle. Can you also get the "delicacies" out of the bottle?

Code: Count how many pieces of yarn are in the bottle!

Solution: 9

2. Find the fox's lunch!

Subject Integration: Mathematics, Environmental Studies

Materials: A balance scale or coat hanger with clothespins at the ends; several paper bags of different weights, each labelled with a different number

Task: The fox is a predator. Its diet mainly consists of small rodents, but it also eats insects, worms, fish, and lots of fruit in the autumn. The fox's lunch in the story is in the heaviest bag. Can you find it?

Code: The number written on the heaviest bag

Solution: 1

3. What time is the party?

Subject Integration: Mathematics, Visual Arts, Reading

Materials: A worksheet cut into as many pieces as there are team members, coloured pencils

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
X	V	X	V	X	V	X	V	X	V	IX	X	IX	X	IX	X	V	V	I	X
III	IV	I	IV	IV	IV	IV	III	X	I	IV	IV	IV	IV	I	IV	IV	IV	IV	I
V	IV	IX	IV	V	X	V	I	V	X	I	V	V	IV	X	IV	IX	I	IV	V
II	IV	I	IV	V	II	X	II	I	III	V	I	X	IV	V	IV	IX	X	IV	V
X	IV	I	IV	II	V	V	X	IV	V	IX	I	IV	III	IV	X	V	IV	III	
V	IV	IX	IV	IV	IV	III	I	X	II	IV	IV	IV	X	IV	I	III	IV	X	
II	IV	I	IV	I	X	IV	II	IV	I	X	III	I	IV	V	IV	V	V	IV	V
V	IV	V	IV	V	III	IV	X	II	I	V	V	III	IV	IX	IV	II	X	IV	V
X	IV	I	IV	II	I	V	III	I	X	I	IV	III	IV	II	IV	III	I	IV	II
III	IV	I	IV	IV	IV	IV	II	X	I	IV	IV	IV	IV	I	IV	IV	IV	IV	V
IX	I	IX	V	I	V	I	I	IX	III	I	V	III	I	X	II	IX	X	II	I

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
X	V	X	V	X	V	X	V	X	V	IX	X	IX	X	IX	X	V	V	I	X
III	IV	I	IV	IV	IV	IV	III	X	I	IV	IV	IV	IV	I	IV	IV	IV	IV	I
V	IV	IX	IV	V	X	V	I	V	X	I	V	V	IV	X	IV	IX	I	IV	V
II	IV	I	IV	V	II	X	II	I	III	V	I	X	IV	V	IV	IX	X	IV	V
X	IV	I	IV	II	V	V	X	IV	V	IX	I	IV	III	IV	X	V	IV	III	
V	IV	IX	IV	IV	IV	III	I	X	II	IV	IV	IV	X	IV	I	III	IV	X	
II	IV	I	IV	I	X	IV	II	IV	I	X	III	I	IV	V	IV	V	V	IV	V
V	IV	V	IV	V	III	IV	X	II	I	V	V	III	IV	IX	IV	II	X	IV	V
X	IV	I	IV	II	I	V	III	I	X	I	IV	III	IV	II	IV	III	I	IV	II
III	IV	I	IV	IV	IV	IV	III	X	I	IV	IV	IV	IV	I	IV	IV	IV	IV	V
IX	I	IX	V	I	V	I	I	IX	III	I	V	III	I	X	II	IX	X	II	I

Task: Do you know Roman numerals? Find all the Roman numeral IVs and colour in the correct squares! If you arrange the columns in alphabetical order, you'll find out what time the party starts.

Code: The digit in the tens place of the digital clock's minute display

Solution: 3

4. Send the Invitation by Airplane!

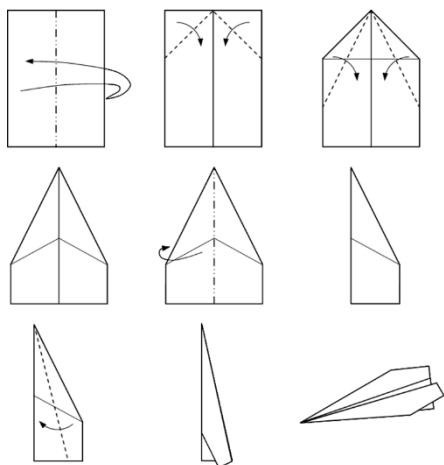
Subject Integration: Design and Technology, Mathematics

Materials: One A4 paper per child, printed instructions for folding

Task: Fold a paper airplane!

Code: The station leader will reveal the code if every child successfully folds a working airplane. (Team members may help each other but should not fold it for one another!)

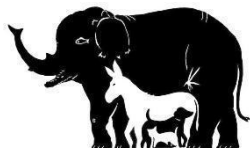
Solution: 8



5. Who Was Invited to the Party?

Subject Integration: Environmental Studies, Mathematics

Materials: Printed picture



Task: Count how many animals with four legs you can see in the picture! (Optionally, the group can also talk with the station leader about these animals.)

Code: The number of four-legged animals.

Solution: 7

Time filler: If one of the teams finishes earlier, they will receive a colourable illustration related to the story.

<https://www.istockphoto.com/hu/vektor/r%C3%B3ka-%C3%A9s-g%C3%B3lya-mese-illusztr%C3%A1ci%C3%B3-gyerekeknek-vicces-rajzfilmfigur%C3%A1k-gm649289912-118011323>

The solution:

The teams gather in the classroom. The codes must be entered into a Genially task, which they discuss together. If the code is correct, they can watch the animated video.

After that, there is a discussion about the story and the characters' traits.

Genially: <https://view.genially.com/6820a971f80d552083de1dd1/interactive-content-the-fox-and-the-stork>

Evaluation of the activity:

Each group reflects on their teamwork, giving feedback, requests, and advice to one another based on the progress sheet.

Teacher's evaluation: praise and guidance given individually and to the group as a whole.