

**Tool 4.3**

Experience emergence

CLARITY Competence Area:

Opening up to diverse climate-resilient and regenerative futures

GreenComp Competence Area:

Envisioning sustainable futures

Why use this tool?

Games and improvisations create spaces where learners experience not-knowing and a widening of possibilities of what may come next. They build competences to operate in situations of volatility, uncertainty, complexity and ambiguity. They also provide us with some training in collectively navigating the multiplicity of possible futures at each given moment. They also integrate playfulness and joy into learning, which is critical to retain knowledge and build skills.

Activity 4.3.1

Futures Games

Overview

Different card decks or creative prompts can be used with learners of various ages (see the Resources section for more details). They introduce various scenarios of the future to play with, or ask questions that help us reflect on how we see the future or expect it to be. They help expand imagination, build critical thinking and give an experience of collective intelligence in a playful way.

Curriculum linkage

Ethics, Religion & Philosophy, Civics & Social Studies and Sustainability & Climate Education classes that use projections and future scenarios.

Competences built

Futures literacy, critical thinking, imagination, adaptability and exploratory thinking.

Prep Work

Think about some back-up questions or scenarios, in case you wish to create a future game with your learners.

Competences/activities to practice first by the teacher:

- Exploring the iceberg (3.4.)
- Futures Literacy Lab (4.2.2), to understand the various uses of the future

Levels in the activity

1. Play an existing Futures Game
2. Design and play a Futures Game with the learners



BASIC INFO

Age range:

6+

Duration:

15-50 minutes

Group size:

Flexible

Level of difficulty:

Basic

Materials/space required:

Either an existing future game deck or material to create a game

Location:

Indoors

Engagement of external stakeholders:

No



Level 1: Play an existing game

1. There are multiple Future Games, and future card decks available on the market in multiple languages, which can support learners in exploring different scenarios of the future and asking new questions. Please check the resources section for ideas, knowing that our selection is not exhaustive and based on resources in the English language. Select a future card deck that encourages curiosity in relation to different possible futures.
2. In case you cannot access an existing Future Game, you, as a teacher, can design a very simple future game that consists in asking 'what if' questions in relation to various visions of a probable, desirable or a strange future, and inviting learners to reflect on new situations, challenges or questions that may arise in this world. Examples include:
 - a. What if schools were about taking care of rivers and of the ocean?
 - b. What if there were more trees than inhabitants in cities?
 - c. What if fungi ruled the world?
 - d. What if our value in the world was determined by the amount of natural life we protect?
 - e. What if our houses were made of organic and recycled materials only?
 - f. ...
3. This exercise can help learners develop critical thinking, exploratory thinking and adaptability by enhancing their imagination and ability to contribute to constructive dialogues.

Level 2: Design and play a Futures Game

1. Encourage learners to research existing games at the intersection of futures and climate change as preparation.
2. Invite small groups of learners to invent a game that could encourage others to explore multiple futures in a changing climate. Those futures could include probable futures based on current data, trends and climate scenarios and desirable futures that are just, peaceful, climate-resilient, regenerative, and biodiverse.
3. Alternatively, invite small groups of learners to design a game that would encourage discussions about the different solutions and possibilities to build climate resilience and foster regeneration in response to the climate crisis.



4. Encourage learners to reflect on the process of winning the game. This can mean reflecting on the values that would be shared and actions that would be rewarded in this type of future world. Winning the game could then depend on standing for those values and taking specific actions in favor of climate resilience and regeneration.
5. Another alternative for older learners would be to invite small groups of learners to design a game that focuses on staying with the trouble and the not-knowing when it comes to transformative change. What are the tricky questions and challenges that are difficult to grapple with when it comes to a deep societal transformation towards a more just, climate-resilient and regenerative world. How can we foster a playful exploration of those questions? How can we enjoy the process of not-knowing and exploration as an opening to new ways of being, knowing and doing in the world?
6. Encourage learners to prototype their future games and test it with learners from other groups.
7. Reflect collectively on the experience of creating and playing with the Future Games.



Dos and don'ts

Do

Encourage creating games that imply spending some time in nature and/or in discussion with community members. Games do not have to be board games.

Don't

Don't make the design of future games about listing and promoting all existing solutions to the climate crisis at individual level, and being the most responsible citizen. Instead encourage learners to look at solutions that require collective action and can have a larger and more transformative impact.

Adaptations:

We invite you to adapt this activity to the specific needs of your learners, including by taking into account their neurodiversity. When adapting tools and activities for neurodivergent learners, please note it is not about treating others how *you* want to be treated, but how *they* want to be treated. Ask, listen, and stay open to different ways of learning and engaging.



Resources

- The [Future Game 2050](#)
- [Cards of Hope:](#)
 - [Digital](#)
 - [Printable A4](#)
- [Global Agents](#)
- <https://climategame.eu/about.ph>
- The [Climate Change Megagame](#) at Linköping University

References

This activity was designed by One Resilient Earth.

- Douglas, B. D., & Brauer, M. (2021). Gamification to prevent climate change: a review of games and apps for sustainability. *Current Opinion in Psychology*, 42, 89–94. <https://doi.org/10.1016/j.copsyc.2021.04.008>
- Ouariachi, T., Li, C., & Elving, W. J. L. (2020). Gamification Approaches for Education and Engagement on Pro-Environmental Behaviors: Searching for Best Practices. *Sustainability*, 12(11), 4565. <https://doi.org/10.3390/su12114565>



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Activity 4.3.2

Improvisational storytelling

Overview

Learners collaboratively write a story about a multitude of futures, through a theatre-based approach based on the 826 model. The learners start the story collectively while the teacher and volunteers write it down and illustrate it. The story eventually splits into two alternatives and the learners split into two groups, where each group further develops their alternative storyline, and the learners independently write and/or draw their end to the story, with all versions of the story can be put together in a book.

Curriculum linkage

Science, History, Mathematics, Language & Literature, Arts and Ethics, Religion & Philosophy

Competences built

Imagination, adaptability, exploratory thinking, futures literacy and collaboration

Prep Work

- Research examples of transformational change that has taken place historically in your local context.
- Look up news articles about children worried about climate change to find a local case.



BASIC INFO

Age range:

6+

Duration:

45 min * 2

Group size:

Up to 60

Level of difficulty:

Basic for learners, but it requires a teacher with some theater/performance experience

Materials/space required:

Paper, pens, colored pens, PC

Location:

Indoors

Engagement of external stakeholders:

If theater/performance artists can be involved for the improv storytelling, it could make the experience more lively.

Having volunteers to help write down the stories would also be beneficial.



Steps in the activity

1. Warm up to storytelling
2. Introducing the main narrative
3. Time travel
4. Storytelling
5. Make a book (optional, if you have time)

Step 1: Warm-up to storytelling (5-10 min)

Option for young learners: Ask the learners what their favorite food is and ask them to describe it as if they had super senses (taste, smell, ...).

Option for older learners: Introduce the improv game “One Word at a Time.” This is a fun and easy warm-up exercise that allows learners to get acquainted with improvisation as a method. Learners create a story one word at a time. Learners suggest the words out loud, without raising their hands first. If two or more learners speak at the same time, the group can vote on which word will remain in the story. The game is over when the story reaches a natural conclusion, and the learner who said the first word also gets to say the last word. This game works well for large groups: the more storytellers, the crazier the story will be.

Step 2: Introducing the main narrative (5-10 min)

Option for young learners: Introduce the character of a young person the same age as the learners who is worried about the future (let's call him Ron). This can be a made up character or real person from a news article (not someone the learners know personally). Introduce Ron in an empathic way:

- You understand why he is worried
- You take his worries seriously

Establish that Ron really needs someone to help him imagine futures that he can get excited about. Get the learners excited about helping Ron and then ask them if they want to help. Encourage them to express their desire to help loudly!

Option for older learners: Explain to the learners that improvising stories about the future can help us imagine radically different futures in a fun way. Collective joy and creativity is important for co-creating the future we want.



Step 3: Time travel (30 min)

1. Explain to the learners that you'll go on a time travel so you can explore the world 1000 years into the future, and then tell other people about it in the form of a book with stories about the future.
 - a. **Option for young learners:** To prepare for time travel, ask the learners how long 1000 years is. Examples:
 - i) Ask them how many days are in a year, how many days are in 10 years, 100 years, and 1000 years. The answer is 365000, approximately.
 - ii) Ask them how old their parents were when they were born? How many generations live in a 1000 years? ($1000:25=40$, meaning their great (great, great, great, great ... say great 38 times!!!!) grandchildren may grow up in a 1000 years).
2. Help learners see just how much can change in 1000 years. You can ask the learners to come up with examples of big changes happening the past 1000 years in their local context, and/or give examples of evolutionary and historical change, such as:
 - a. **Evolutionary change (slow):** The Brown bear and the Polar bear split approximately 500 000 years ago, and it took the Polar bear something like *20 500 generations* to adapt to the living conditions in the Arctic.
 - b. **Epigenetics (quick):** When the ocean warms, fish eggs hatch more rapidly. Codfish eggs in six degrees water take 16 days to hatch. If the temperature increases to 10 degrees, the larva will hatch after only 9 days (In comparison, it is the same as five months of pregnancy in humans). This change will affect how genes are expressed in just *one generation*.
 - c. **Historic change:** In the 1020s, Vikings roamed the seas in their Viking ships and lived with their farm animals in longhouses. In 1024, The Church was established in Norway and the former nature religion outlawed, ca. **200 years** after the first signs of Christianity in Norway.
 - d. **Social change:** In Norway, It took **30 years** of struggle to secure women the right to vote, which they could finally do in 1913.
 - e. **To sum it up:** In 1000 years we could have totally different religions, new actors could have been included in our democracy, humans could have super senses and other "crazy" mutations/epigenetic changes could have occurred.



3. Establish the rule that *for now*, we will assume that 1000 years into the future, **anything is possible**.
4. **Give learners the opportunity to go into the future:** To travel in time, the learners need to close their eyes and imagine how the world looks 1000 years from now. Ask them if they can see it. When they can see it, tell them they are there and to open their eyes. Ask them to describe the Earthlings (could be any species on Earth) and how they live. Ask the learners to imagine they have super senses and invite them to describe how the future looks, smells, sounds, and feels.

Step 4: Storytelling (45 min)

1. **Establish the ground rules** before asking the learners (as a group) who their main characters are. Let them know that their main characters should:
 - a. be a team with one human and one non-human character
 - b. be original (not Harry Potter or some Tik-Tok personality)
 - c. still be alive by the end of the story
 - d. not be exposed or expose others to unnecessary violence
2. **Establish the main characters.** Ask the learners who the main characters are. Help the learners come up with rich characters by asking concrete follow-up questions (How do they look? How old are they? What are their names? How do they know each other?). Use the ideas from step 2 as a starting point if the learners struggle to come up with ideas. Based on the learners' input, help them compile their ideas into 'Frankenstein' characters. Also establish:
 - a. the characters' strengths and weaknesses
 - b. the characters' 'secret weapon'
 - c. the characters' values
 - d. the characters' goal
3. **Visualize the characters for the learners.** An illustrator (could be a teacher or learner) draws the characters on a big board/paper as it takes shape.
4. **Optional: Become the characters.** Invite the learners to stand up, close their eyes and try to see the characters in a setting. Invite them to pose as one of the characters. Ask the learners to open their eyes and look around.
5. **Start the story together.** The main characters go on a mission to achieve their goal. The storyteller (teacher or invited actor) asks what the characters do. Continue with questions like: "What did she say then?". A writer (teacher or volunteer) takes notes on a computer, and the text is displayed on a big screen



so the learners can see the story being written in real time. Soon the characters are confronted with a choice, and have to make a decision. Establish two alternative decisions based on what the characters value. Divide the learners in two groups (or more) and give them each their alternative to continue. The story now splits in two (or more if you make smaller groups).

6. **Continue the story in smaller groups:** Let the learners take the story and go wild. A storyteller (teacher or invited actor) helps the group narrate the story and continue to write the story on a computer.
7. **End the story individually:** Remind the learners about the characters' mission. Will the characters' complete the mission and how? Ask the learners to write and/or draw the end of the story individually on paper. Ask the learners to add their signature and collect the papers in the end.

Step 5: Make a book (optional)

8. **Put the stories together in a physical or digital book**, if you have time after class.
9. Optional: a fun homework assignment could include the learners reading the book to someone at home.



Dos and don'ts

Do

- Remember, **anything is possible in this future!** This is the main rule. Such a rule comes easy for many learners, especially young children. However, it can be challenging for teachers who are used to teaching about realistic scenarios.
- Adopt a "yes, and" attitude. Show excitement for every idea the learners come up with to encourage their creativity and make them feel proud and confident.
- If a learner suggests an idea that violates the rules, ask the whole group in a curious and non-judgemental way: "Is that in line with the rules?" instead of saying "no".

Adaptations:

- Some learners might find it challenging to imagine the world a thousand years into the future. You can adapt the time span to a hundred years, or any number of years that you think works best for your learners.
- The book could be turned into a manuscript for a play. The activity could be repeated as impro theater, with the learners acting out the story instead of telling it.



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References

This tool is adapted by Climate Creativity from the theater approach-based [826 model](#) practiced by the project [Saga skriveliga](#) at Sølvsberget Library and Culture Centre in Stavanger, Norway.



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