



# Enhancing Children's Creativity

The materials in this box showcase the design outcomes of the thesis 'Enhancing Children's Creativity'. In here, you will find five practical design tools for idea generating activities in design projects, together with resources that support you in facilitating creativity effectively.

Each **design tool** comes with a clear description of how the activity works, the materials needed, and guidance on how to facilitate it. They are accompanied by some example **worksheets** to use with the design tools. The added USB stick contains printable PDFs of all the worksheets and the design tools, in both English and Dutch. Alongside these materials are two facilitator resources: the **'Guide to sparking creativity'**, with practical advice for supporting creativity, and a **poster** with actionable reminders to look at daily.

All materials focus on shifting attention from the end product to the creative process, in order to foster children's creative confidence.

How to use?

1. Start with reading the 'Guide to sparking creativity'
2. Put up the poster as an ongoing reminder
3. Use the design tools and worksheets!



**Sarah Jacobse**

Enhancing Children's Creativity: Building creative confidence through idea generation in design education at primary schools

16-10-2025

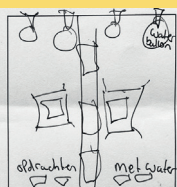
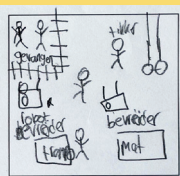
**MSc Strategic Product Design**

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Dr. Milene Guerreiro Gonçalves (Mentor)

# GUIDE TO SPARKING CREATIVITY

Simple strategies to help  
children be **creative** in  
design projects



# This guide is for

Teachers/designers/parents/...



**who want to  
help children to  
be more  
creative and  
generate  
more creative  
ideas in  
design projects**

Through design, kids learn  
to **solve problems,**  
**work together,**  
and **tackle**  
**complex challenges**

At the heart of  
design  
lies **creativity,**  
a foundation  
skill for  
thriving in  
the 21st  
century



**Why  
design?**

# Creativity is...

Dynamic & social  
shaped by people, ideas,  
and context

A process you can learn

Strengthened by engagement  
& motivation

Novel and useful ideas

Built through  
creative confidence,  
which increases when  
children believe in  
their creative abilities,  
and grows through experience



## **Rethink your role**

Step out of the evaluator role and postpone your judgement. Supporting creativity means taking on many roles at once, like being a coach, a resource, and even a designer yourself.

## **Your expectations matter**

When you believe in a child's creativity, they start believing in their own abilities.

## **Bias blocks creativity**

Creativity comes in many forms and many means, so avoid favouring only high-achievers or "well-behaved" students.

## **Encouragement counts**

Support from a respected figure, who expresses belief in children's abilities and guides activities constructively, strongly shapes children's creative confidence.

# Know your influence



Psychological safety gives children the courage to take risks without fear. A brave space builds on this, where six guiding pillars invite openness, curiosity, and courage.

## **Vulnerability**

It's okay to not know, to ask, to share

## **Perspective-taking**

Listen to others' stories with curiosity, not judgment

## **Outside the comfortzone**

Discomfort is the doorway to learning and growth

## **Critical thinking**

Question ideas and stay open

## **Examining intentions**

Pause to reflect: Am I adding something helpful  
and thoughtful?

## **Mindfulness**

Be present. Breathe. Respond with awareness

# Creating a brave space





# What (not) to Praise



## DO

Effort

"You kept trying  
different ways!"

Original ideas

"That's a new  
way of looking at it!"

Process & persistence

"I see how you  
changed and improved."

Collaboration

"Great how you  
worked together."

## DON'T

Prettiness

"That looks so  
neat/realistic!"

Appearance

"Such nice  
colours!"

Being correct

"Good job, you  
got it right."

Perfection

"This is perfect!"

**Examples can be helpful** when design is new, giving students a clearer sense of what is possible. However, they may also **unintentionally restrict originality**, especially if children see them as the “correct” solution.

A useful approach is to always provide **several (at least 4) examples**, so that variety feels natural. Even better, **offer alternative forms of inspiration**, such as images, unusual materials, or open-ended questions, that stimulate ideas without narrowing them down.



# The power of giving examples

1. **Everything** is allowed
2. Postpone your **judgement**
3. Create **as many ideas as possible**
4. Ideas are **owned by everyone!**
5. **1+1=3**
6. **Draw**
7. Give each other **compliments**



# Brainstorm rules

## **Ask the right design question**

Open-ended, simple and connected to the world of kids

## **Clarify the why**

Share learning goals and purpose

# Key design principles

## **Pause & reflect**

Check in on teamwork, goals, and the design question

## **Support their choices**

Give kids choice and agency, but guide them where needed

## **Other tools**

Use energizers, explorative prototyping and iterate ideas.





**This guide is part of the graduation project:**

***Enhancing Children's Creativity***

*Building creative confidence through idea generation in design education at primary schools.*

**The full thesis provides the references, broader context, and research behind this guide.**

The graduation project:

Jacobse, S.S. (2025). *Enhancing Children's Creativity: Building creative confidence through idea generation in design education at primary schools*. (Master's thesis, TU Delft).

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# SPARKING CREATIVITY

## Influence check

**Do I** ... step out of the evaluator role and postpone judgment?

... show belief in each child's creativity?

... support all forms of creativity?

... give encouragement that builds creative confidence?

## Brainstorm rules

1. **Everything** is allowed
2. Postpone your **judgement**
3. Create **as many ideas as possible**
4. Ideas are **owned by everyone!**
5. **1+1=3**
6. **Draw**
7. Give each other **compliments**

## What (not) to praise

### DO

Effort

"You kept trying  
different ways!"

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"That's a new  
way of looking at it!"

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Being correct

"Good job,  
you got it  
right."

Perfection

"This is perfect!"

Always provide **several  
(at least 4) examples**,  
or even better, **offer  
alternative forms  
of inspiration**

## Design principles

Ask the right design question

Clarify and talk about the why

Take time to pause & reflect

Support their choices

Use energizers, explorative  
prototyping and iterate ideas.

## Our brave space

We **step out of**  
our comfort zones.

We **ask and share**, even  
when we don't know.

We are **kind, thoughtful,**  
and **present.**

We listen **with**  
**curiosity**, not judgment.

# Spin around

Children build on each other's ideas by passing them along and making them more crazy (or more realistic), while discovering the power of the creative process.

## Participants

Groups

## Design skill

Think in all directions

## Prior design

experience

None

## Duration

20-30 min

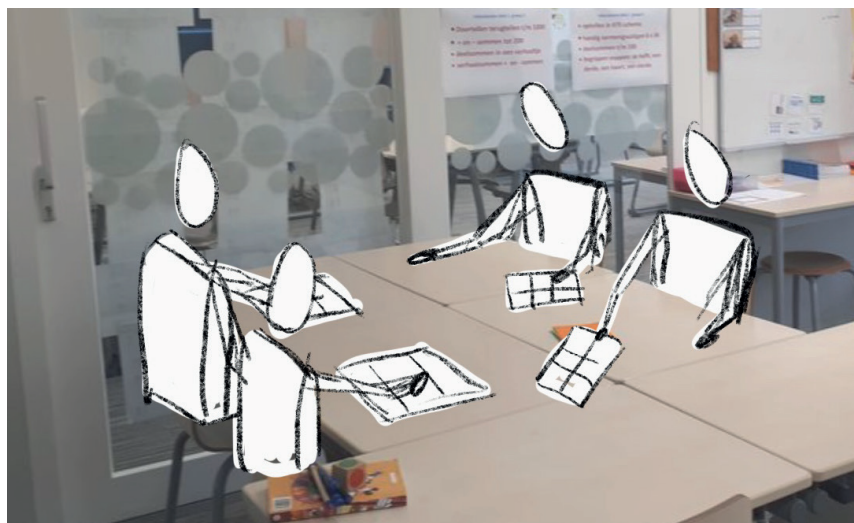
## Design step

Generating ideas

## Description

In small groups, children generate ideas by being inspired by their peers' ideas. Everyone starts by thinking of and drawing a first idea on the worksheet, then passes the sheet to the person on their left. That person looks at the drawing, asks for clarification if needed, and then thinks of a crazier idea and draws it in the next box.

This continues for several rounds until everyone gets their own sheet back. The groups briefly reflect on what was drawn and explain their ideas to one another. Next, the challenge changes. Instead of making the ideas crazier, the students now need to make them more realistic. Again, they pass the drawings around and start a new round.



## Effect

The playful alternation between crazier and more realistic ideas stimulates children to switch between divergent and convergent thinking. By letting go of ownership and building on each other's drawings, they experience continuous surprises. The task of making crazy ideas creates a safe space for imagination, while also grounding ideas in more realistic possibilities.



## Materials

- Worksheet for 'Spin Around'

## Step by step

1. Clearly explain the assignment and the worksheet. Discuss together what "crazier" means and especially what "realistic" means.
2. Each child thinks of an initial idea for the design question and draws it on the worksheet the worksheet as an. Give about 30 seconds to think, then 1 minute to draw.
3. Children pass their sheet to the person on their left. Inspired by their left neighbour's drawing, each child draws a crazier idea in the next box. Repeat the passing and drawing until everyone gets their own sheet back. If there are more than four children in a group, the worksheet is returned once all the 'crazy' boxes are filled.
4. Let the children briefly discuss in their group or with the whole class:
  - What was your first idea?
  - What did others add to it?
  - Which idea surprised you or made you laugh the most?
5. Pass the drawings to the left again, but make sure nobody has their won sheet. The child who drew the first crazy idea should not be the first to make it realistic (to avoid simply repeating the first idea).
6. Now ask the children to make the ideas more realistic, so to think about how the idea could work in real life.

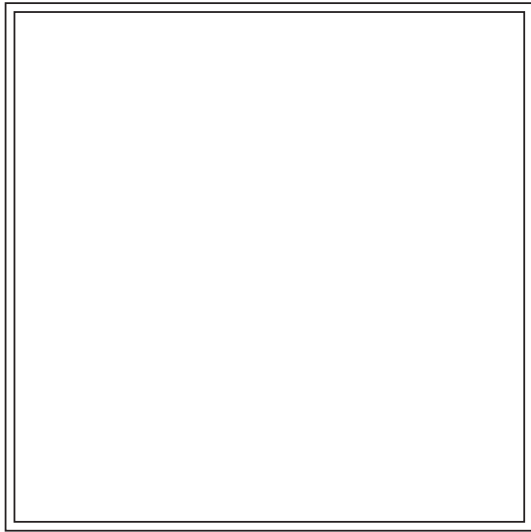
**Important:** this doesn't mean simply removing parts of the drawing. Encourage children to adapt the idea thoughtfully (e.g., how could the crazy element be made feasible?).
7. Repeat the "make it realistic" round as long as new ideas keep appearing.
8. Start a new sheet with a fresh starter idea to continue the process or finish the activity and share highlights.

## Tips

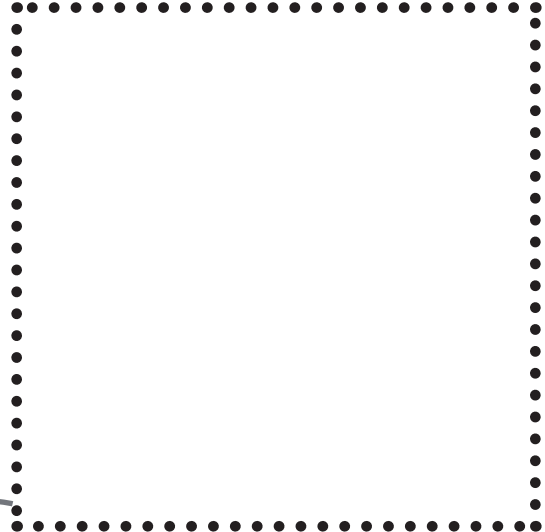
- Print the worksheet on A3 paper, so children can draw big.
- The first round doesn't have to be perfect. Children usually understand the process better after completing one full cycle. You can choose to keep the first round short and then use a new sheet to deepen the process.
- If someone gets stuck while making an idea crazier, ask exploratory questions to spark imagination, for example:
  - How would a baby/grandpa/pirate/robot do this?
  - What would it look like in a fantasy world?
  - What if you can only feel or hear your idea instead of seeing it?
- The goal of this activity is not to make a "beautiful" drawing. Make it clear that the kids should not judge each other's drawing skills and be strict about this!

Worksheet - Spin Around

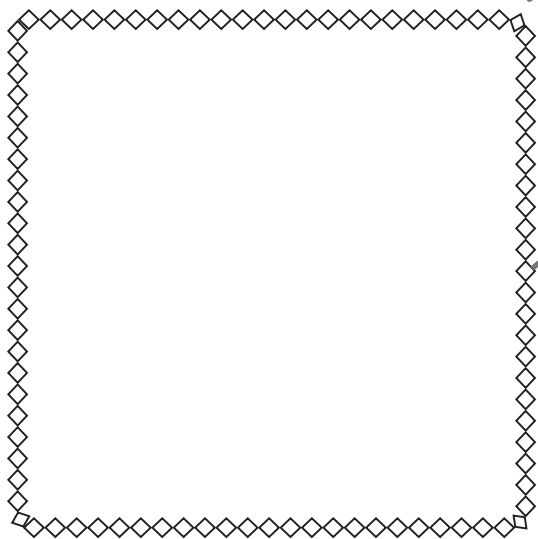
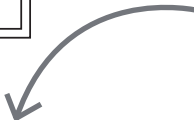
Start  
here!



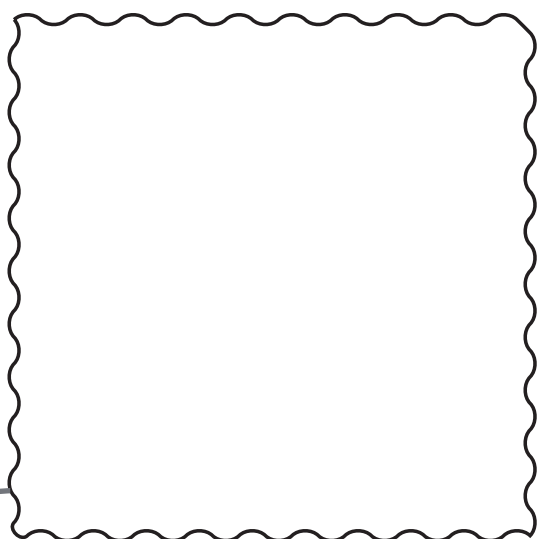
Crazier



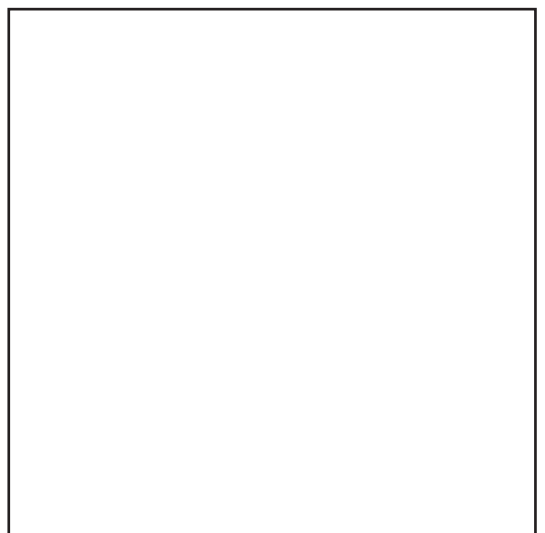
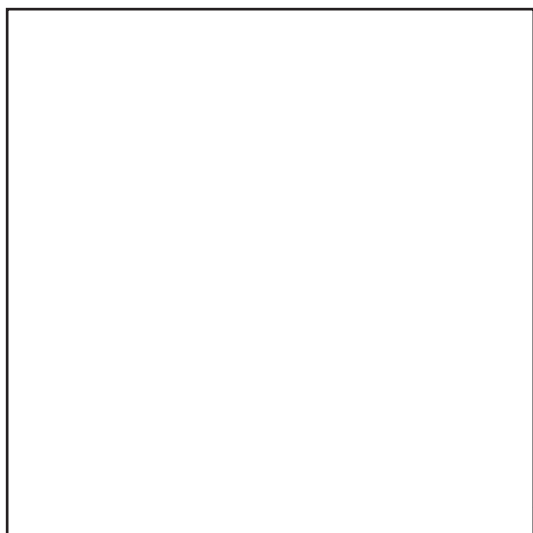
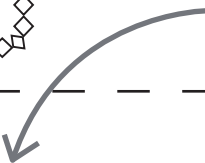
Crazier



Crazier



More realistic



More realistic

# The idea board game

This design tool supports idea generation through active reflection and an element of surprise, by playing a board game.

**Participants**

Groups

**Design skill**

Think in all directions

**Prior design experience**

None

**Duration**

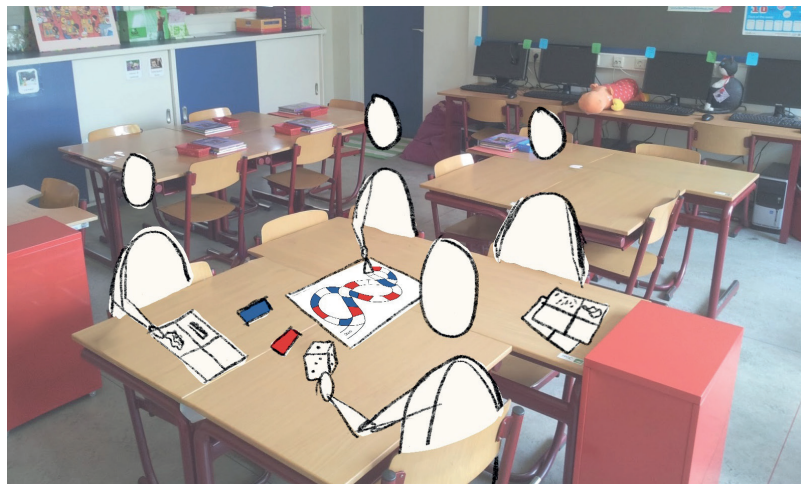
20 min

**Design step**

Generating ideas

## Description

The idea board game is an activity in which children work in small groups to come up with as many ideas as possible for the design challenge. Each space on the board produces a new idea, which is drawn on the 'ideas template' during the game. The board contains plain white spaces and also red and blue spaces that require drawing a card: a mystery object card to incorporate into a new idea, or a reflection card to discuss together. Thanks to the reflection moments, unexpected twists and surprising (often funny) combinations, more ideas emerge while all children stay actively involved in the creative process.



## Effect

The board game format creates playful energy and keeps all children engaged. The mix of mystery objects and reflection moments stimulates both creativity and teamwork, helping children to let go of perfection and instead enjoy exploring many different options together.

## Materials

- Dice + a token (can be anything)
- Worksheets for "Idea board game":
  - o Game board
  - o Red and blue cards
  - o A stack of idea templates

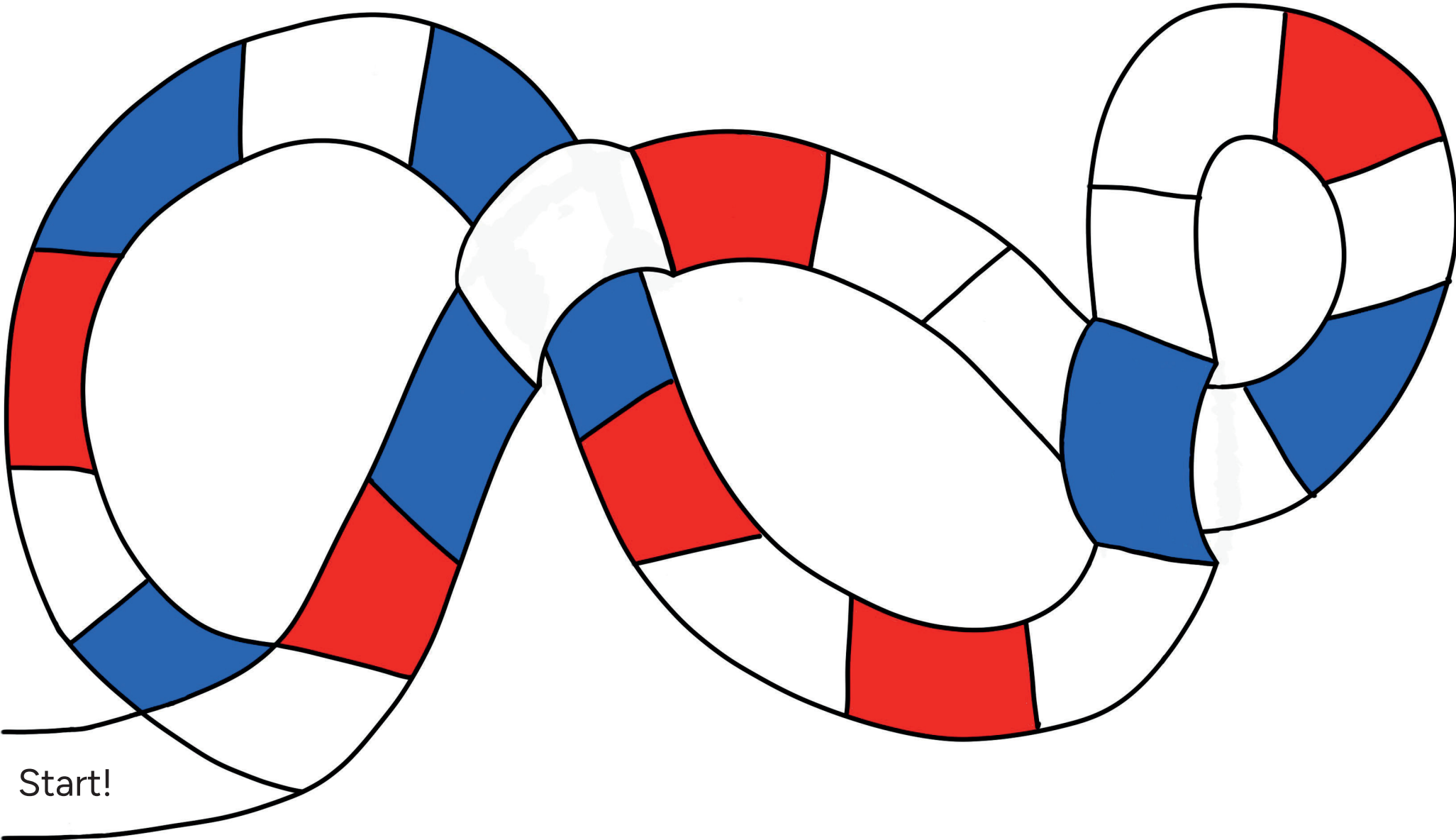
## Step by step

1. Give each group a game board, a set of red and blue cards, a die, and plenty of templates.
2. Use a timer to keep track of time. Make sure the timer is not visible to the children so it doesn't create time pressure.
3. The first child in each group rolls the die and moves the token to the number shown.
4. If the token lands on a white space, the group together invents an idea for the design question and draws it on the idea sheet.
5. If the token lands on a red space, take a red card. The card shows a mystery object, that needs to be incorporated into a new idea, together and drawn on the template.
6. If the token lands on a blue space, take a blue reflection card and read it aloud. Then the turn passes to the next child.
7. The next child rolls the die, and the group repeats steps 4-6.
8. Repeat until time is up or no new ideas emerge.

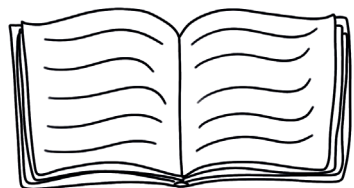
## Tips

- Print the idea templates (and the game board) on A3 paper, so there is plenty of space for drawing.
- You can also add your own reflection cards or mystery objects to enrich the activity.









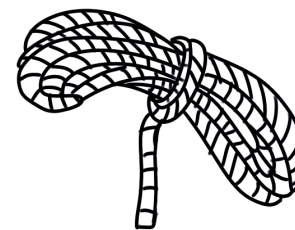
Book



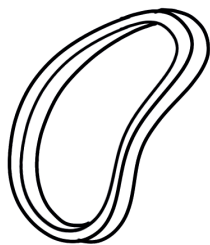
Key



Sock



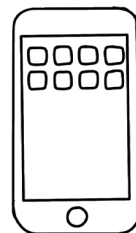
Rope



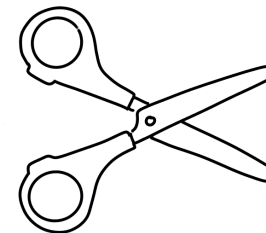
Rubber band



Water



Phone



Scissors



Balloon



Toilet paper



Feather



Lamp





Look at all the ideas.

Is there an idea you  
never expected you  
could think of?

Can you still  
remember the design  
question?

Keep it in mind when  
coming up with new  
ideas!

What is the most  
unique or crazy idea  
you have come up  
with?

What is our group  
doing well right now?  
What could be better?

In which idea did you  
use a mystery object?

Did it turn into an  
original idea?

Count all your ideas.  
How many do you  
have so far? Can you  
double that number?

Was there a moment when  
someone shared an idea but  
you thought it wasn't good  
enough?

Remember, all ideas are  
welcome, there are no  
wrong ideas!

Which surprising  
thought from  
someone made an  
idea even better?

Which idea did you  
work really well on as  
a group?  
Keep it up!

What is our team's  
superpower right  
now?

Does everyone get a  
chance to share their  
ideas?

Are you helping each  
other come up with  
new ideas?



# Spontaneous stories

This design tool supports idea generation through active reflection and an element of surprise, by playing a board game.

**Participants**

Groups

**Design skill**

Think in all directions

**Prior design**

**experience**

None

**Duration**

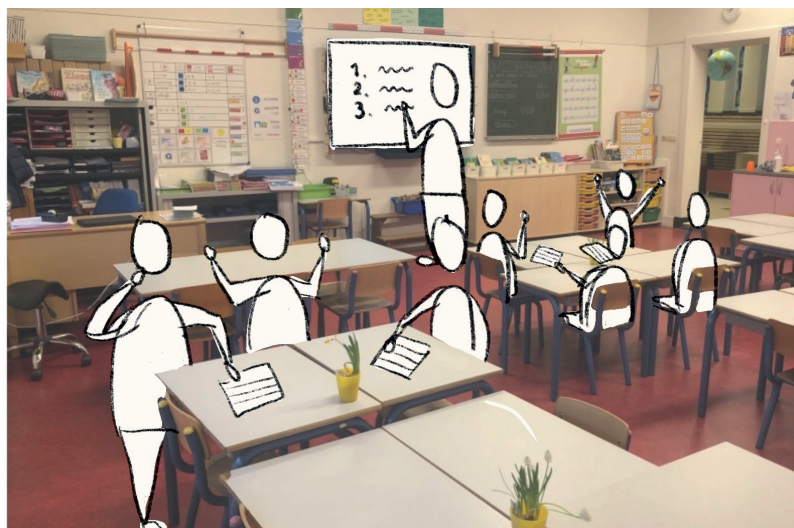
30-45 min

**Design step**

Generating ideas

## Description

In this activity, children in small groups create short stories in which an idea for the design question is shared in different contexts. The activity kicks-off with all groups thinking of these activities, characters, and locations, which the teachers then draw a random combination from, to frame a context that the story needs to be about. The children then use a worksheet to explain their solution for the 'specific person' doing 'an activity' while located 'somewhere'. After a couple of rounds, the children reflect on their ideas and have the option to turn their story into a short, improvised play to show their classmates their favourite idea.



## Effect

The combination of unexpected characters, activities, and locations encourages children to think beyond their personal experiences. Perspective-taking and storytelling allow them to explore the design challenge from different angles, while improvisation fosters flexibility, quick thinking, and confidence in expressing ideas in multiple ways.

## Materials

- Three colours of paper cut into cards
- Worksheet for 'Spontaneous stories'

## Step by step

1. Each group thinks of an activity, a character, and a location, and writes these on the cards. Make sure all "activity" words are written on the same colour paper, "character" on another, and "location" on another. You can guide this by first handing out all the "activity" cards, collecting them, then distributing the "character" cards, and so on.
2. Collect the cards, (remove any inappropriate ones,) sort them by colour, and randomly choose a combination of one activity, one character, and one location.
3. Repeat the design question and read aloud the three context cards to set the scene for which the design question must be answered.
4. Groups come up with a short story about how, in that situation, an idea/ solution for the design question might emerge.
5. Each group describes the situation and their idea on the worksheet.
6. Repeat steps 2-4 with a different combination.
7. After several rounds, stop generating new ideas and ask each group to choose their best idea. They present it to the class as a short play.

## Tip

- Pause during the activity to reflect on how the idea generation is going. Observe how the teams are collaborating and ensure the ideas stay aligned with the design question. These reflections support the generation of new and relevant ideas.



## Worksheet - Spontaneous stories

Once upon a time, there was/were \_\_\_\_\_ [ person ]  
-----

He/she was / They were at \_\_\_\_\_ [ location ]  
-----

He/she was / They were \_\_\_\_\_ [ activity ]  
-----

The problem was \_\_\_\_\_ [ design problem ]  
-----

It made him/her/them feel \_\_\_\_\_ [ effect ]  
-----

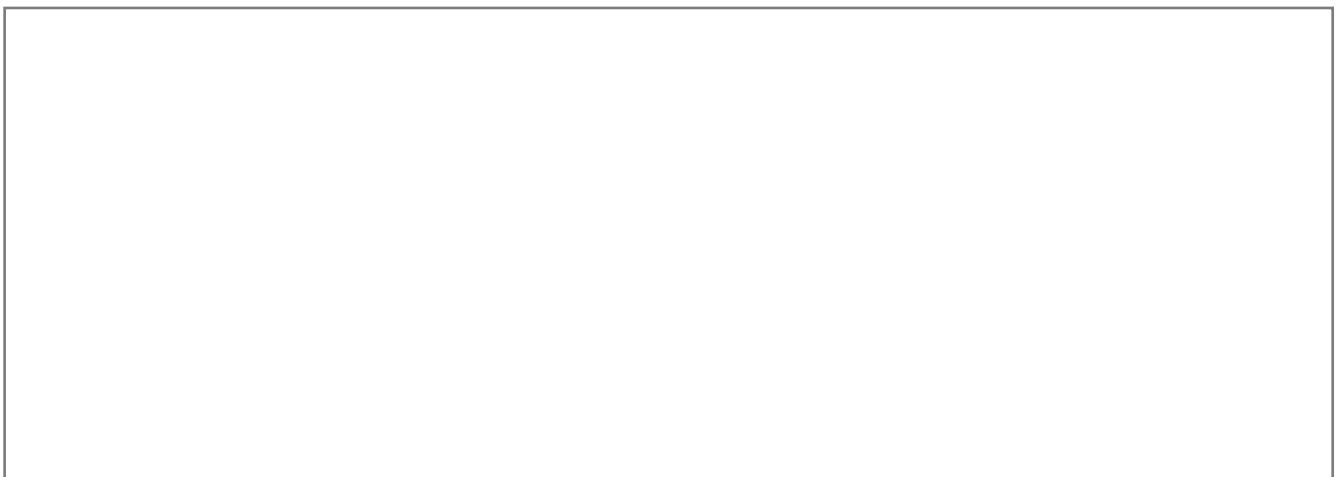
But, then there was a \_\_\_\_\_ [ design solution ]  
-----

With the \_\_\_\_\_ [ name of design ] he/she/they could  
-----

\_\_\_\_\_ [ how it works ]  
-----

Now, he/she feels / they feel \_\_\_\_\_ [ effect ] !  
-----

Optional drawing of the idea



# Sprint of ideas

Children run from base to base, like in a relay, and generate ideas together using stimulating exploratory questions.

**Participants**

Pairs

**Design skill**

Think in all directions

**Prior design experience**

Average

**Duration**

30 min

**Design step**

Generating ideas

## Description

The class is divided into small groups, each with a coloured ribbon. The group members spread out across the stations, where exploratory questions are placed, so at each station is one child from each group. The children then run from station to station, like in a relay, coming up with new ideas inspired by the exploratory questions.

The first child comes up with an idea for the design challenge, draws it on a card, and runs to the next child to briefly explain it. Together, they invent and draw a new idea. The first child stays behind at that station, while the teammate continues running to the next. There are no winners; the running continues until no new ideas emerge.



## Effect

The combination of movement, playful urgency, and changing stimuli sparks curiosity and keeps children actively engaged in generating ideas. Leaving ideas behind and building on others' contributions reduces pressure of creating the perfect idea, while the exploratory questions and dynamic environment inspire quick imaginative thinking.

## Materials

- Worksheets with exploratory questions
- Cards for the ideas (around A6 size)
- Different coloured team ribbons/bands
- Containers (same number as the bases)
- Pens or markers

## Step by step

1. Choose locations for the bases and place at each base: one exploratory question, a stack of idea cards, a container for the idea cards, and pens. Outdoors (playground) or a PE hall works best, as there's plenty of space to move between bases.
2. Divide the class into small groups and assign each child a place at a base, so that every base has one representative from each group.
3. **Child 1** invents the first idea for the design challenge and draws it on a card.
4. **Child 1** runs to **Child 2**, hands over the card, and explains the idea in a single short sentence. They then leave the card in the container at the base.
5. **Child 1** and **Child 2** use the exploratory question to come up with a new idea together.
6. **Child 2** draws this new idea on a new card, then runs to the next base where **Child 3** is waiting with a new question.
7. The children continue this process until no new ideas are generated.
8. **Optional:** Create a base with an idea board where all the generated ideas are collected. At the end of a relay round, the group sticks their ideas to the board, and they may take an idea from another group as the starting point for the next round.



What if...  
a dog had to use it?



What if...  
someone in  
kindergarten has to  
use it?

What if...  
you lived underwater?

What if...  
you were in a magical  
land where anything  
is possible?

What if...  
your idea could talk  
and tell how it feels?

What if...  
it's very windy or  
rainy?

What if...  
everything worked  
upside down?

What if...  
your idea was set 100  
years in the future?

# Mindful musical

**Mindful Musical is an activity that uses music to spark reflection, associative thinking, and new ideas through conversation and creative exploration.**

**Participants**

Pairs

**Design skill**

Think in all directions

**Prior design experience**

Average

**Duration**

20-30 min

**Design step**

Generating ideas

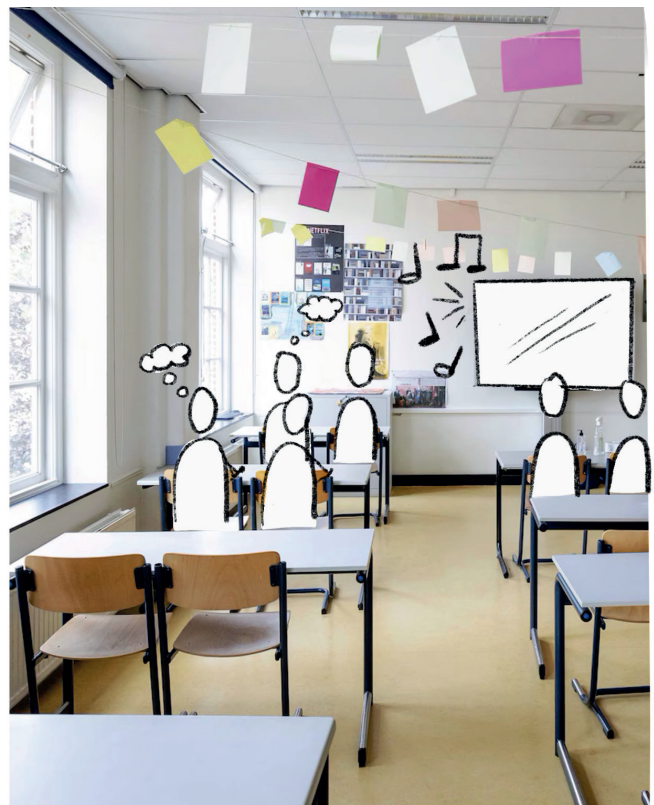
## Description

To provide a starting point for the generation of multiple ideas inspired by music, everyone first draws the first idea that comes to mind for the design question. Next, different songs are played to provide inspiration for new ideas or ways to change the first idea. As this might be a challenging task for children, an in-between step is added, where in pairs the children discuss what the music made them think of and how it made them feel, to provide a bit more structure as to how the music can then be used as inspiration.

It's important to choose the music carefully. Use short fragments, avoid songs with lyrics, and vary tempo and style. The QR code links to a playlist with example songs that can be used in class. You could also collaborate with a music teacher to curate songs together or make the whole lesson together.

## Effect

Music-driven inspiration encourages children to tap into emotions and associations they might not access through words or images. The combination of listening, reflecting, and discussing fosters originality and diverse ideas. Each child experiences the music differently, leading to surprising, personal, and often humorous ideas that enrich collaboration and creative thinking.





## Materials

- Playlist of songs (sample playlist accessible via QR code)
- Worksheet for 'Mindful musical' (idea template)



## Step by step

1. Start with 1 minute of silence, during which everyone thinks of ideas for the design question on their own.
2. Play one song from the playlist for the whole class.
3. Pause the music. In pairs, children briefly discuss what the music made them think of and how it made them feel.
4. Use the music as inspiration to generate new ideas, either individually or in pairs.
5. Repeat steps 2-4 with songs

## Tips

- Do some practise rounds, for example with a different design question, so everyone understands better what is asked of them and how the activity works!
- Print the idea templates on A3 paper, so there is plenty of space for drawing.



