YEAR 8 TECHNOLOGY

Materials and Production Processes

Miss Faughlin

THE NAME GAME

To help your teachers get to know you

Going around the desks,

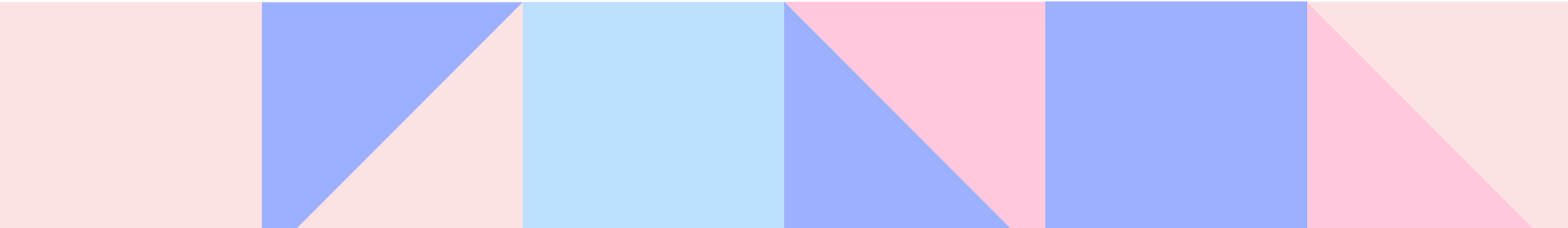
The first person **says their name** and **something they like** or a **fun fact that starts with the same letter as their name.**

- I am **Miss Faughlin** and I like **fruit**

The next person repeats that and adds their own:

- That's Miss Faughlin who likes fruit, and I am **Liam** who likes **Lego**

Each person must **repeat ALL the pervious names and items in order.**

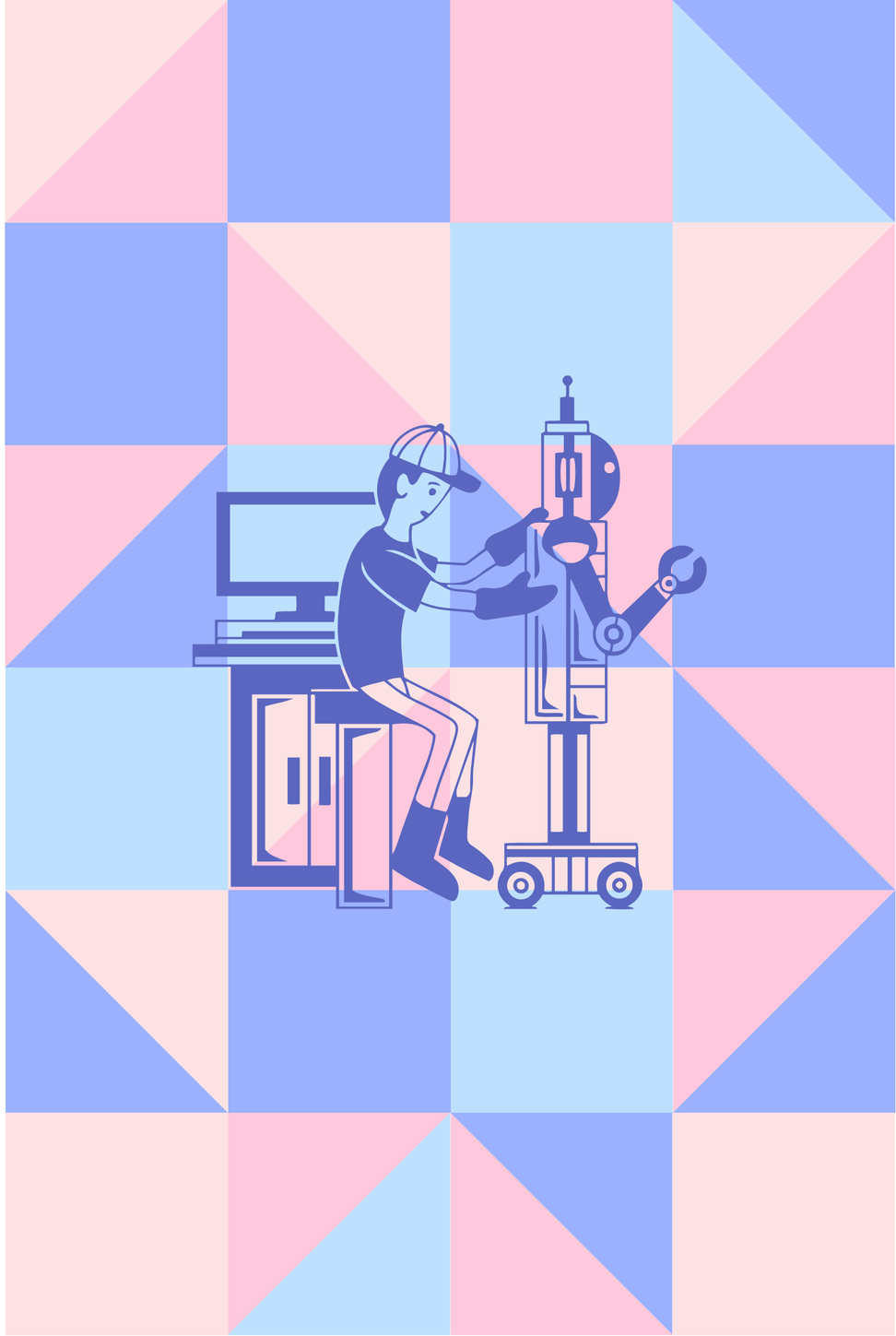


WELCOME TO THE UNIT

In this unit, you'll:

- Learn how everyday products are made
- Explore materials like fabric, timber, metal, or plastic — and discover sustainable ones too.
- Examine sustainable, legal and ethical considerations of product development.
- Use tools and techniques to design and create your own project.
- See how designers, manufacturers and creators solve problems using clever ideas and cool production methods.
- Bring your ideas to life — and learn skills you'll use forever.

Lets Get Started



My Design Rules booklet

Don’t forget to write your name on your booklet

WHAT DO YOU ALREADY KNOW ABOUT DESIGN?

Think:

What makes a design good?

What should you consider when designing?

How do you come up with designs?

Who can come up with designs?

What designs do you like? (bright colours, basic designs, etc.)

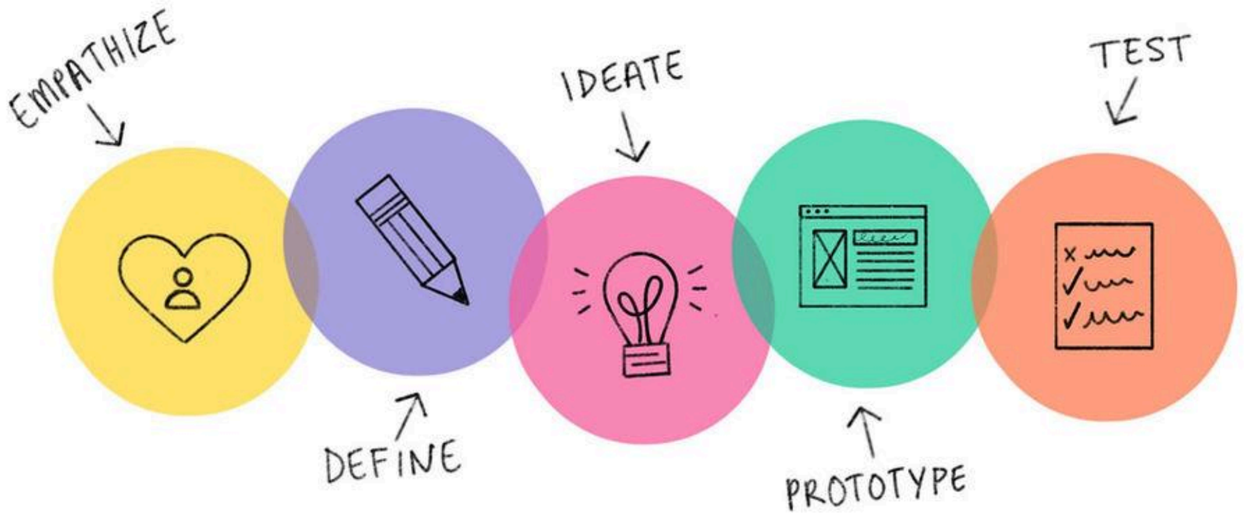
DESIGN THINKING

Design thinking is...

- a process where a **need or opportunity is identified** and a **design solution is developed.**

- when we create or design something (a product, system, or solution), we need to think carefully **about how it affects people, the planet, and the economy** — both now and in the future.

- design thinking methods can be used when trying to understand a problem, develop ideas or refine them based on testing.



CREATIVE THINKING

Creative thinking is...

- used to develop many different ideas or modify (change/edit) ideas in unique ways.
- creative thinking is about coming up with new and different ideas by making **unusual connections**.
- it helps you discover original solutions that can solve a problem or serve a purpose.
- creative thinking doesn't always mean inventing something brand new.
- it often means adapting or combining existing ideas in clever ways to make something better or different.

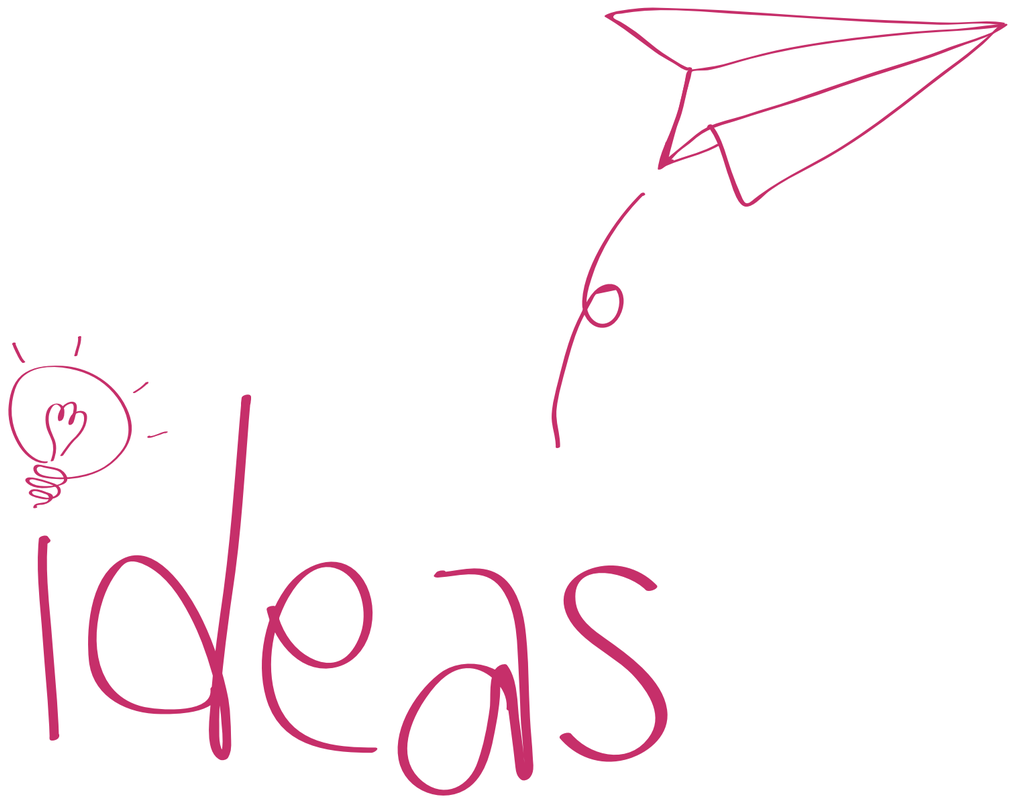
CREATIVE THINKING

Creative thinking is...

It is important to remember:

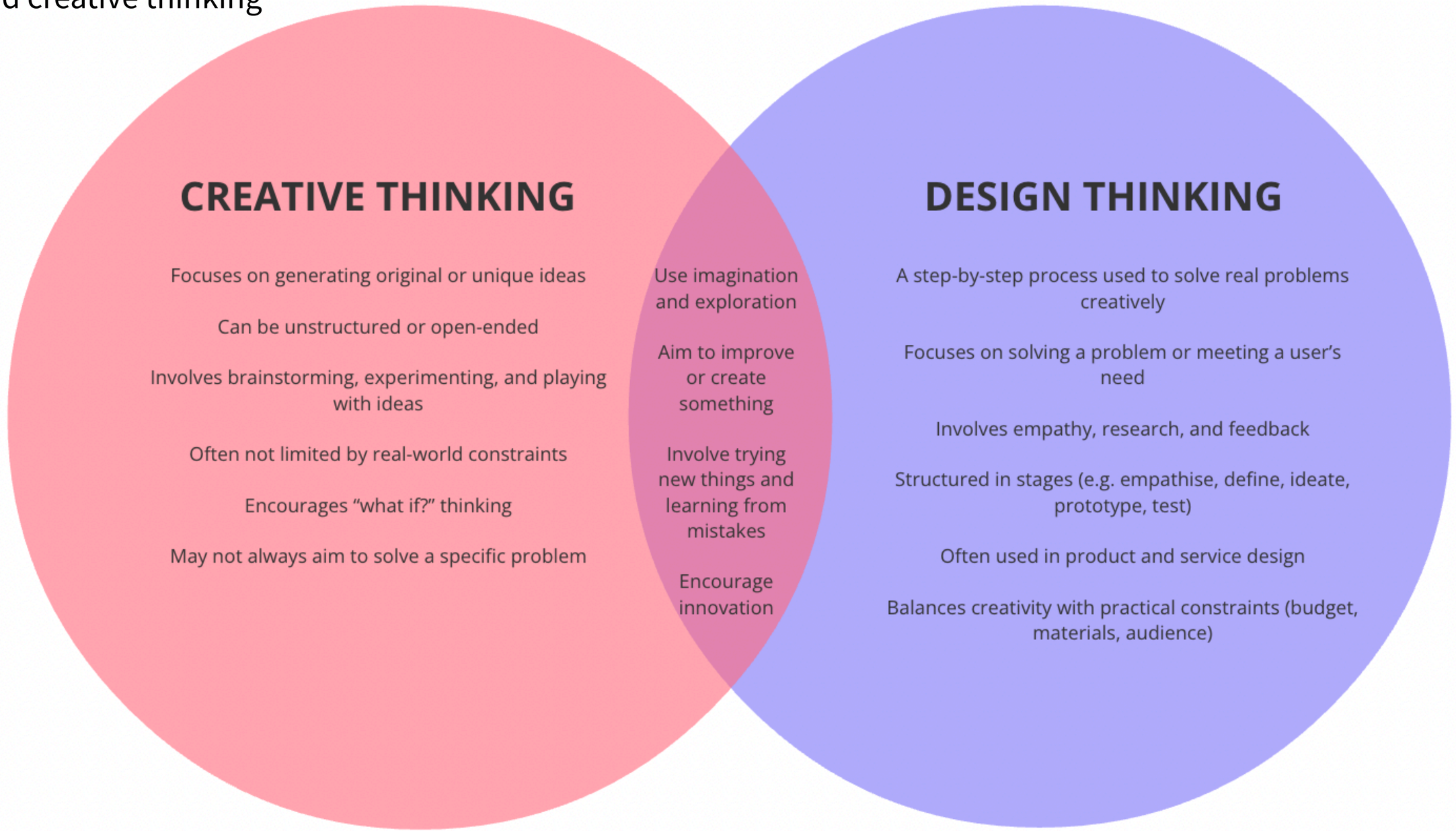
Creative thinking is **not the teaching of how to be creative.**

Creative thinking is a process focusing on:
- generation of **idea**
- experimentation of **ideas**.
- quality of **ideas**.



In your books, note down the difference between design thinking and creative thinking

LET'S COMPARE

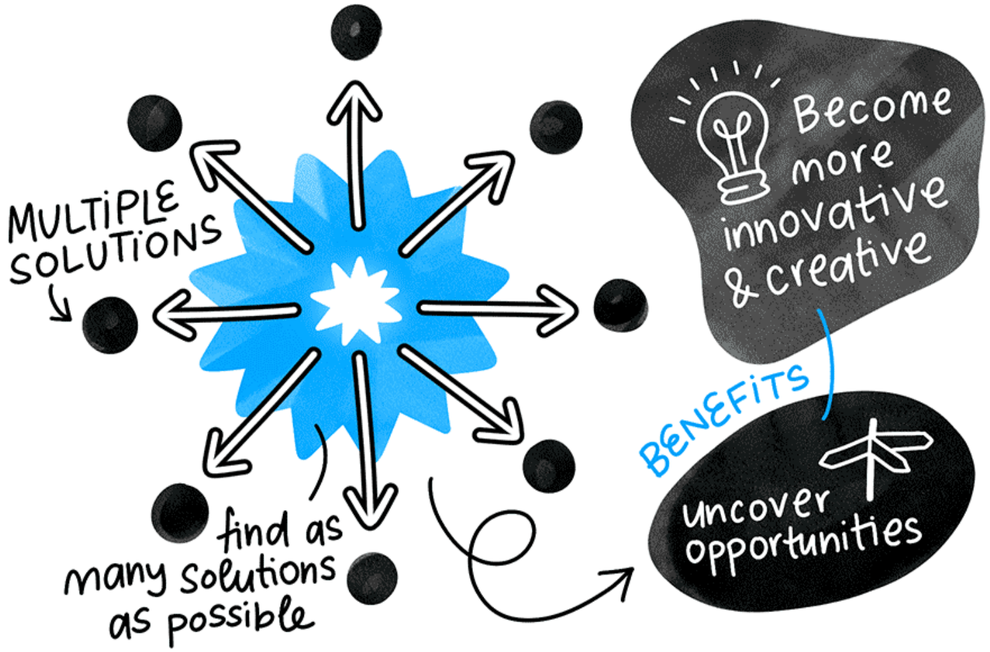


DIVERGENT THINKING

- *Creative thinking requires the individual to think* ***divergently***

divergent thinking: considering many ideas and ways in which a problem might be solved.

Creative thinking is considered divergent thinking as it allows one's thoughts to go wide. It comes from open-mindedness, flexibility, explorations and a curious approach.



Useful when completing tasks such as:

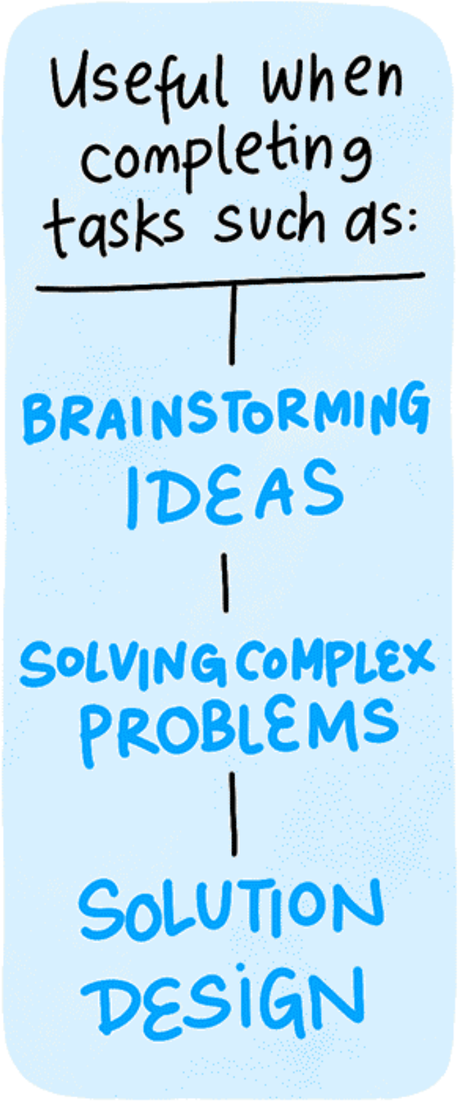
- BRAINSTORMING IDEAS
- SOLVING COMPLEX PROBLEMS
- SOLUTION DESIGN

DIVERGENT THINKING

- *Instead of looking for one right answer to a question, the question asked should have many possible answers.*

- *Rather than asking '**what is 2 plus 2?**', to get the **answer of 4**,*
- *The question could be: 'What are some different ways to arrive at the answer of 4'?.*

3+1=4 8÷2=4 4x1=4



YOUR TURN: HOW CAN WE GET AN ANSWER OF 10?

DESIGN THINKING CHALLENGE — CLUTTER CLEANUP

Step 1: Divergent Thinking

- Brainstorm lots of product ideas to help teenagers clean up clutter.

Think freely — no idea is too crazy!

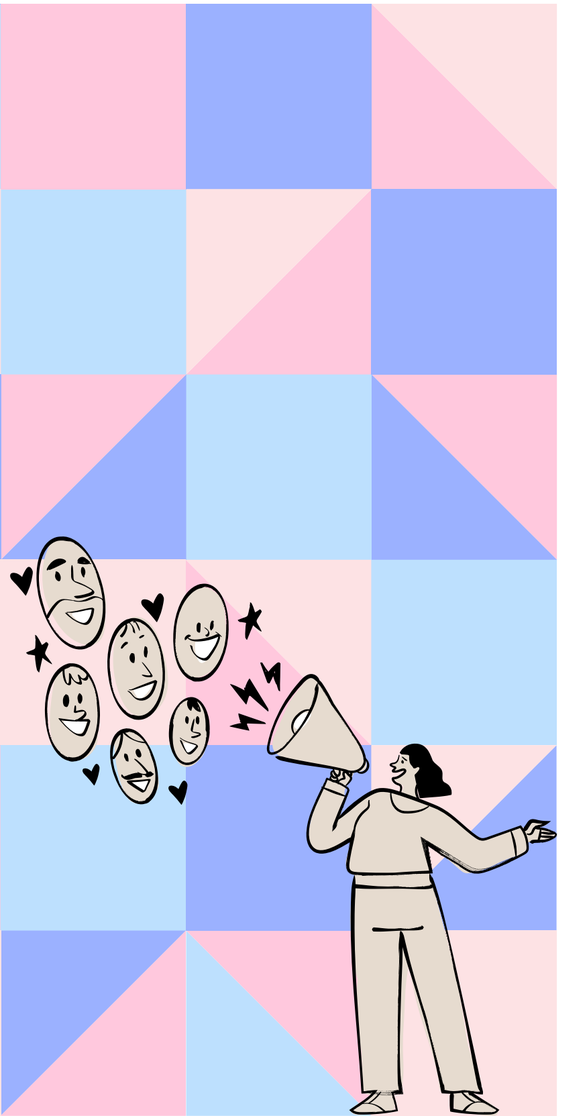
Step 2: Creative Thinking

- Pick 1 or 2 ideas and adapt or combine them into a new product.
- Draw and describe your creative solution.

Step 3: Design Thinking

- Think about who will use your product and what problem it solves.
- Plan the features and materials.
- Share your idea with a partner and get feedback.

PITCH US YOUR IDEA



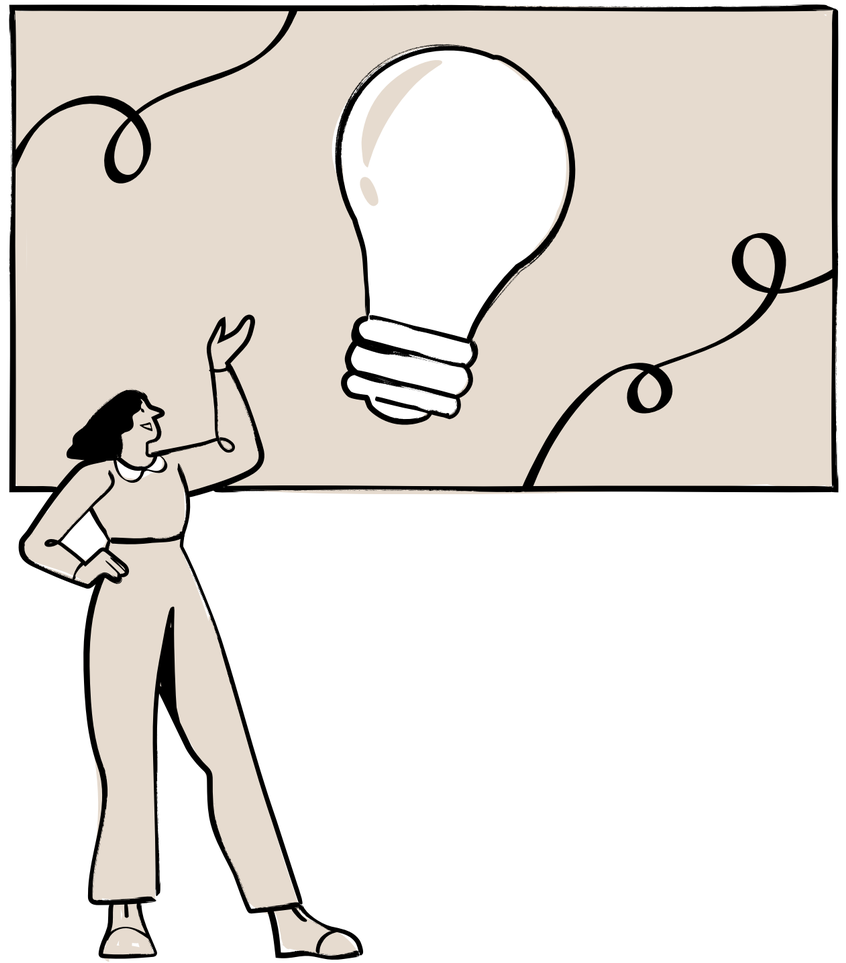
Hey Designers!
Think your design is the next big thing?

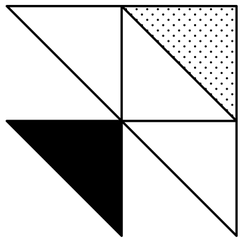
Do you want to share your clutter-cleanup product idea with the class?

Here's your chance to pitch!

- Tell us what your product is.
- Explain who it helps and how it works.
- Show us your sketch or notes if you have them.
- Get feedback and ideas from your classmates!

No pressure — everyone's ideas are welcome, big or small!





KAHOOT

Kahoot!

Create interactive quizzes, polls, presentations, and more to engage your audience.

kahoot.it

next lesson...

THE STRANDS OF CREATIVE THINKING

Strand 1: Generation of Ideas – Coming up with lots of different ideas

Strand 2: Experimentation – Playing with and changing ideas

Strand 3: Quality of Ideas – Making sure ideas are useful, original, and detailed

ONGUARD TESTING