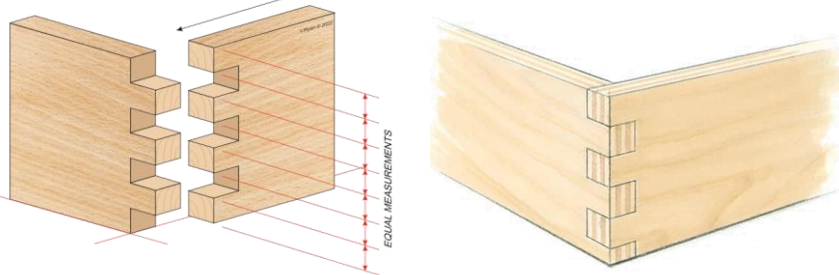# Year 9- Project

## What is a finger joint?

A **finger joint** is a type of wood joint where the ends of two pieces of wood are cut into interlocking "fingers." These fingers fit together like puzzle pieces, creating a strong and durable connection. It's commonly used to join shorter pieces of wood together to make longer ones, such as in furniture or cabinetry.

EQUAL MEASUREMENTS

## What is design fixation?

**Design fixation** is a problem that all designers face at some point in their careers.

It is when a designer finds it difficult, to produce a range of innovative solutions, to a design problem. It sometimes takes the form, of a designer producing a number of solutions that are similar, lacking innovation and creativity.

EXAMPLE

Traditional

INNOVATION

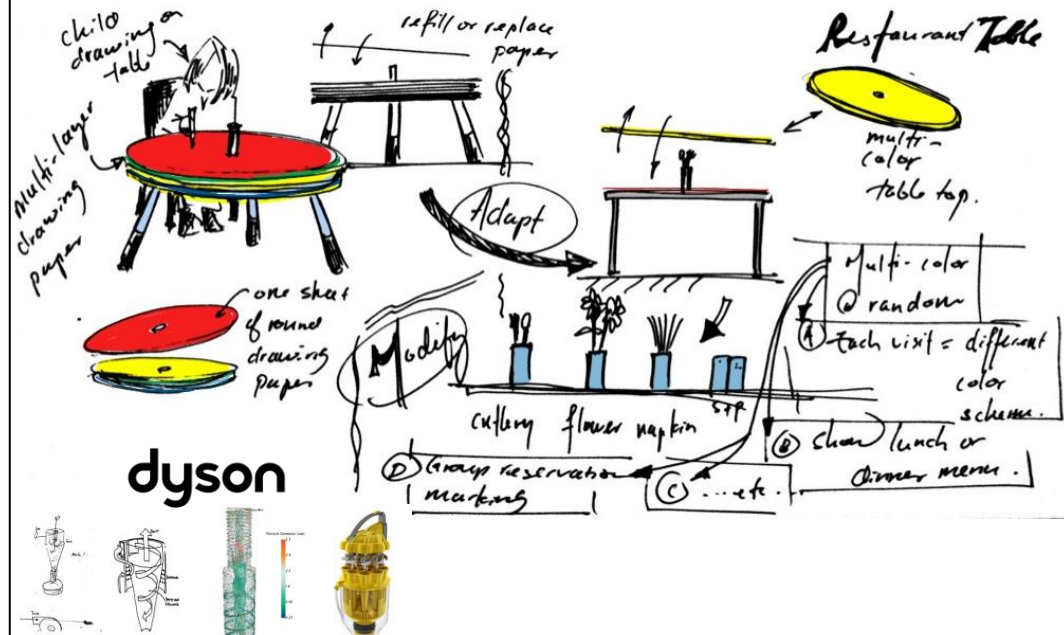## How do I develop a design idea?

### S.C.A.M.P.E.R.
**SCAMPER** is a useful list of words to help us think differently about a problem, idea, concept or issue.
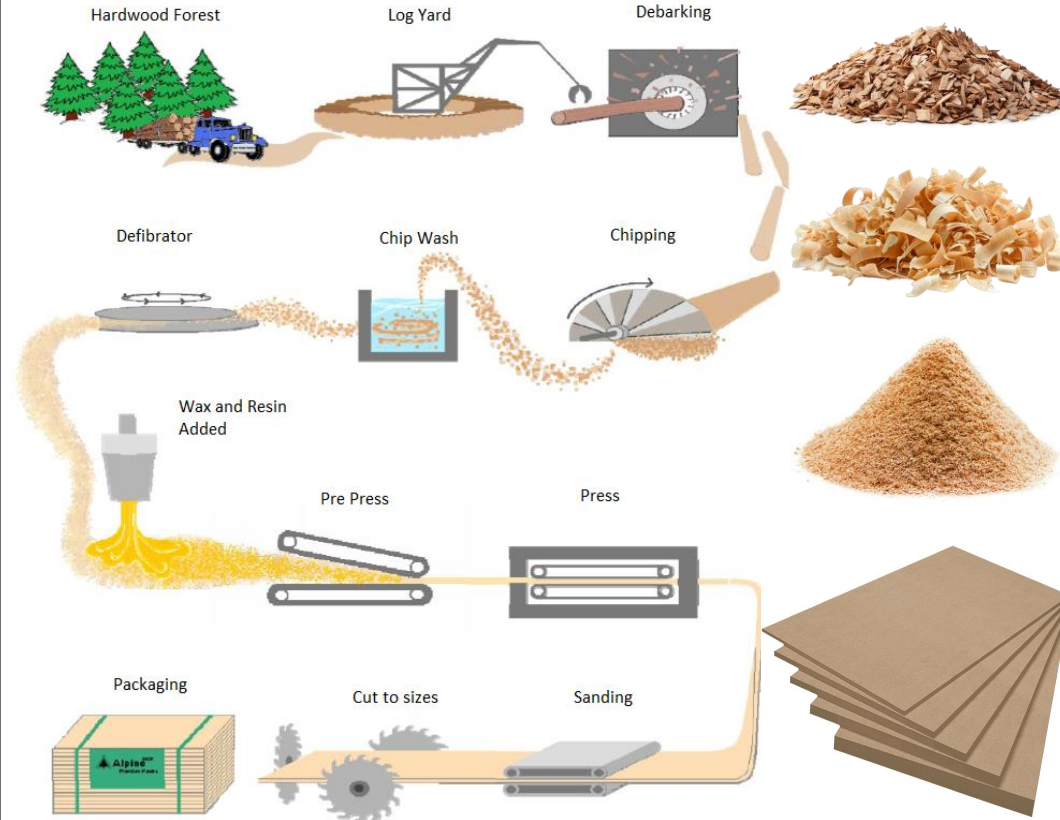
## The SCAMPER model
Seven perspectives to provoke creative solutions to challenging problems.

# S C A M P E R

| **S** Substitute | **C** Combine | **A** Adapt | **M** Modify | **P** Put to another use | **E** Eliminate | **R** Reverse |
|---|---|---|---|---|---|---|
| Replace a part, material, or process with something else. | Join elements, ideas, or functions together in new ways – or find a new element you can merge with. | Modify something to better suit a new purpose, person or context. | Enlarge, reduce, change the shape, or alter attributes. Can a small change have a big effect? | Rather than changing the thing itself, consider changing the context it exists in. | Remove elements, simplify, or pare down to essentials. Is less more? | Flip the script, re-order your priorities, invert cause and effect, and turn it all upside-down. |

child drawing on Table

refill or replace paper

Restaurant Table

multi-color table top.

Multi-layer drawing paper

Adapt

Multi-color @ random

each visit = different color scheme.

one sheet of round drawing paper

Modify

cutlery flower napkin

Group reservation marking

show lunch or dinner menu.

dyson

## What is Medium Density Fibreboard (MDF)?

Hardwood Forest

Log Yard

Debarking

Defibrator

Chip Wash

Chipping

Wax and Resin Added

Pre Press

Press

Packaging

Cut to sizes

Sanding



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## Why is literacy important in Design and Technology?

**Literacy** is important in **Design and Technology** because it helps you effectively understand, communicate, and solve problems related to the design and creation of products or systems.

Here's why literacy plays a key role:

**Reading skills** are essential for understanding design briefs, manuals, safety guidelines, and technical specifications.

**Writing skills** help you create reports, presentations, and proposals that clearly communicate their ideas to others

**Vocabulary** related to design and technology is specific (e.g., materials, processes, functions), and understanding this terminology helps you to discuss your ideas more precisely.

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## KEYWORDS



| KEY WORDS | |
|---|---|
| Numeracy | the ability to understand and work with numbers. |
| Sustainability | avoidance of the depletion of natural resources |
| Environment | the natural world, as a whole or in a particular geographical area, especially as affected by human activity. |
| Reduce | make smaller or less in amount |
| Reuse | use again or more than once. |
| Recycle | convert waste into reusable material. |
| Repair | restore something damaged, faulty, or worn to a good condition. |
| Refuse | indicate or show that one is not willing to do something. |
| Rethink | The manufacturing of a single product or item |
| Accuracy | A resin dissolved in a liquid for applying on wood, metal, or other materials to form a hard, clear, shiny surface when dry. |