*where great schools begin*

# Learning Furniture
## A 'Don't Just Stuff It' Guide

How to use learning experiences to define learning spaces.
The guide to read before you buy your furniture.

# Facilitator's Guide

# "Oh stuff it! Let's just stuff it with a few of those and some of those. That should do!"

## Forward

This guide was developed from an interactive forum run by CEFPI (Victorian Chapter) and held at the The University of Melbourne on 25th February 2010.

Prompted by the Federal Government's economic stimulus package ("Building the Education Revolution"), the CEFPI forum gathered 70 educators, designers and architects to discuss issues relating to the interiors of school learning environments...the very 'stuff' that enhances the teaching and learning experience. The forum explored how to approach the interiors of 21st century learning environments by asking:

– What experiences do you want to encourage students and teachers to have in the learning environment?

– How do you select or design furniture, fittings and technology to support the educational purpose of the learning setting?

– What accessories need to be considered?

The lessons from the forum were clear and immediate. The forum demonstrated the great interest in the subject and the complexity of problem facing educators and designers. It highlighted the need for practical assistance for schools and their designers in developing learning settings appropriate to today's education.

And so, the forum was transformed into this video and guide.

CEFPI believes that:

– Facilities impact the learning, development and behaviour of the facility user;

– The planning process is essential for quality facilities;

– Sharing and networking improves the planning process; and

– There is a standard by which to measure.

By sharing with you the results of the workshop, we hope that we can improve the planning of your school. We hope that this challenges and inspires your school to develop improved learning settings...and that it leads to enhanced facilities that will support and enrich the places where your students learn.

**Richard Leonard**
President CEFPI Australasia
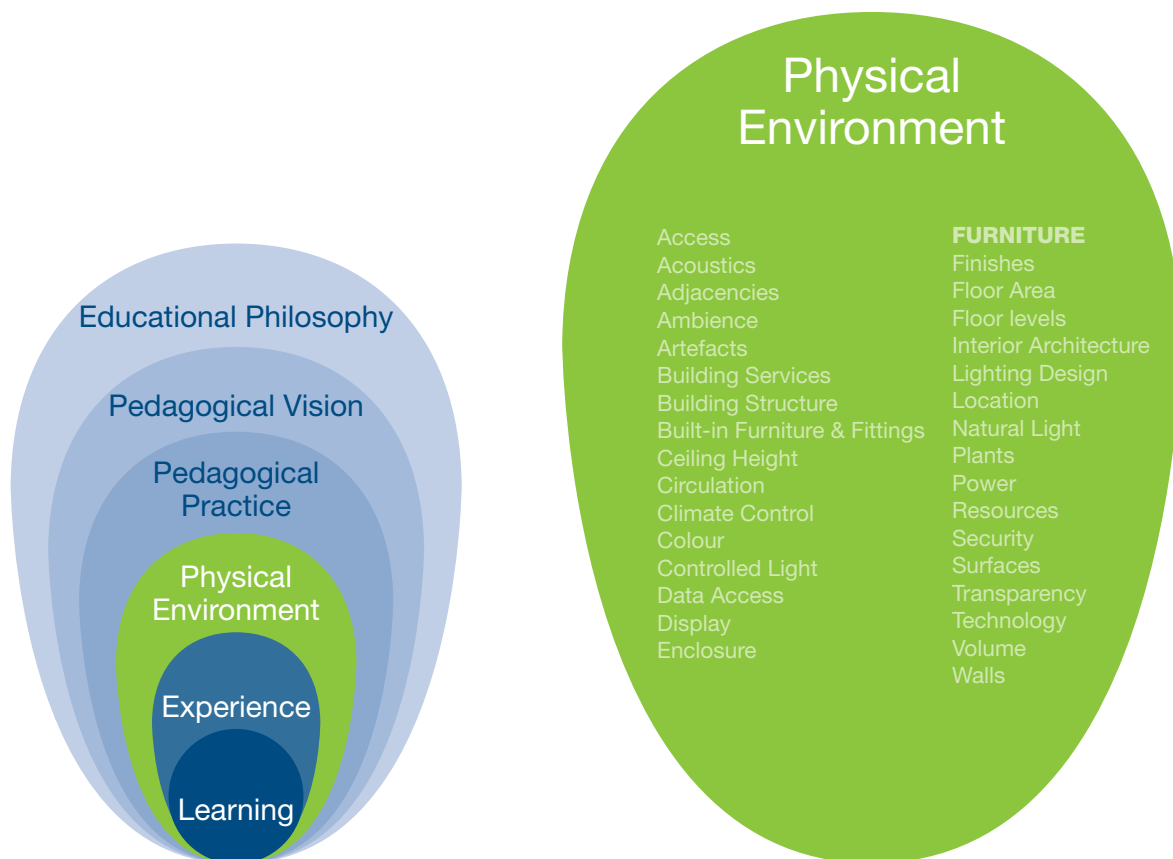(Victorian Chapter)

May 2010

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# 1.0   Introduction

## Educational Philosophy

### Pedagogical Vision

#### Pedagogical Practice

##### Physical Environment

###### Experience

Learning

## Physical Environment

Access
Acoustics
Adjacencies
Ambience
Artefacts
Building Services
Building Structure
Built-in Furniture & Fittings
Ceiling Height
Circulation
Climate Control
Colour
Controlled Light
Data Access
Display
Enclosure

**FURNITURE**
Finishes
Floor Area
Floor levels
Interior Architecture
Lighting Design
Location
Natural Light
Plants
Power
Resources
Security
Surfaces
Transparency
Technology
Volume
Walls

This resource is designed to promote the critical role that the physical environment plays in primary and secondary school education. In particular, it responds to the issues that schools experience as they try to furnish new and existing learning spaces to support contemporary approaches to teaching and learning.

The resource presents a strategy that is intended to support educators, architects, interior designers, students and school communities to design physical settings that can facilitate a variety of learning experiences. The focus of the strategy is on furniture - an essential element of interior design in schools.

Furniture is only one of many aspects of the physical environment and therefore only part of the solution. The aim of the resource is not to dictate a 'new' range of furniture solutions, but to use furniture to explore the connections between pedagogy and the physical environment.

The resource is designed to be a collaborative tool. It can be used by different groups over different periods of time to achieve different aims. For example, a group of teachers and students might use it over the course of an afternoon to reorganise a conventional classroom to promote different learning settings.

Alternatively, teachers and a facilities manager may use the resource at a series of meetings to furnish a new school building, or a school might employ the strategy over a period of months to critically examine its educational philosophy and pedagogical vision with the aid of an educational facilities planner before collaborating with an architect or interior designer to develop its learning spaces from the 'inside out'.

Whatever your aim, this resource will ensure that you don't just stuff it with any old furniture, but that you work through a process to create diverse and purposeful physical settings for rich learning in your school.

## 2.0   Linking a school's educational vision and pedagogy with furniture selection



Conventional classroom
Image courtesy of scatts.files.wordpress.com



Innovative learning environment

It has been demonstrated through research that learning spaces influence both teachers and students thoughts, feelings and behaviours, and that person-environment relations can facilitate or inhibit learning.

One of the ways in which the built environment influences how teachers teach and how students learn is by communicating pedagogical intent. Components of the built environment, including buildings, interior design elements and loose furniture, provide environmental cues to teachers and students about how they should act.

For example, a traditional classroom that is furnished with a teacher's desk at the front of the class and individual student tables and chairs arranged in uniform rows signal to those who enter the room the well defined behaviours that are expected of them.

Other environments may be furnished to create more diverse learning settings that invite teachers and students to move around and appropriate spaces that meet their immediate needs.

As the design of school furniture may reflect pervasive notions of pedagogy, the selection and arrangement of furniture should be carefully considered to ensure that it actively supports the style of teaching and learning that is desired in a school.

In order to create purposeful learning settings, schools should reflect on their fundamental beliefs about how students learn and what they need to know, understand and be able to do.

Once these fundamental questions have been discussed, a school community is better equipped to identify the types of learning experiences that will support student learning.

# 3.0   The strategy

The aim of this strategy is to consider the interior design of school learning environments from the inside out—starting with learning experiences. If we understand the nature of learning experiences, we may begin to understand the kinds of activities students and teachers will be engaged in, the nature of their learning relationships, and the length of time they may be engaged in each experience.

This strategy uses a series of questions to provoke discussion and assist you to identify the functional, pedagogical and psychological requirements of specific learning experiences. Your responses to the questions posed will form the foundation of the design brief for each learning setting you examine.

Guided by the Interactive Workshop document participants will work in small groups to collaboratively design a learning setting for specific learning experiences - assigned one to each group. We suggest that working groups of 4-6 people are ideal for getting the most out of this collaborative strategy. Each working group will develop and visualise their design with paper cut outs of furniture and people positioned with Blu-Tak on a background board. Participants can bring the boards together to consider how the settings might be arranged to create connections between them.

A list of example learning experiences is provided as part of this document. These are examples for you to consider. Please substitute the experiences you envisage for your school community as you work your way through the strategy.
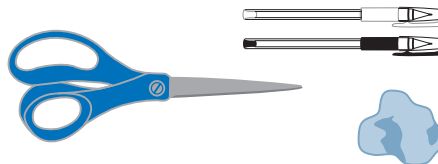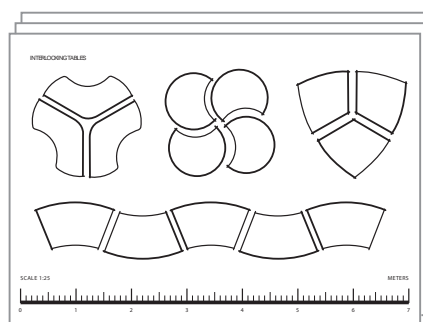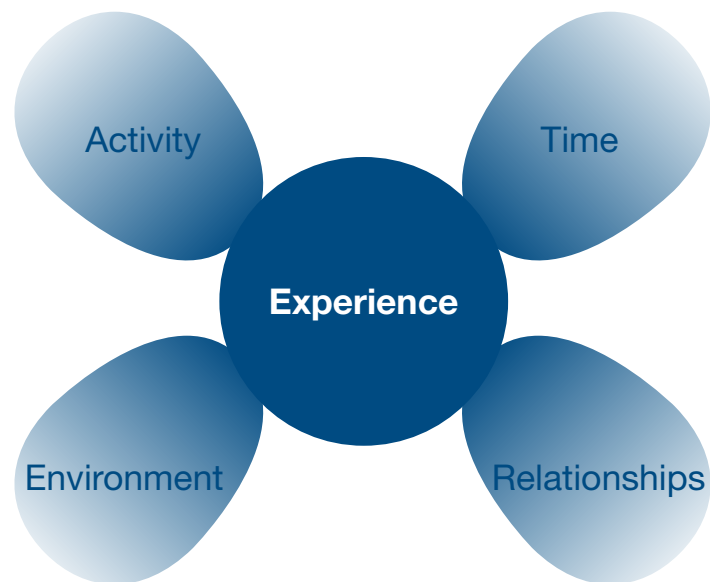
For each working group or experience, you will need:

– Your experiences (a list of examples supplied)

– Furniture and people shapes (templates supplied in this document)

– A2 black board (cut to 42cm x 42cm square) the background for your design

– Scissors to cut out furniture shapes

– Black and white pens to annotate your design

– Blu-Tak to stick cut-outs on the board.

# 4.0   What to do

The furniture and people shapes provided are the basis of your kit of parts. You can cut them out and use them to aid your discussion and develop the design of your learning settings.

Use the steps on the following pages to guide you through the strategy.

Note: These shapes are intended simply as tools. You may like to design customised items, trace off extras or join items together to achieve the configurations you desire. Many of the symbols are intended to represent multiple items of furniture.

For example the informal seating symbol (shown below) may represent a beanbag or an armchair. Possibilities are listed next to specific symbols as a guide.
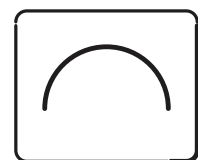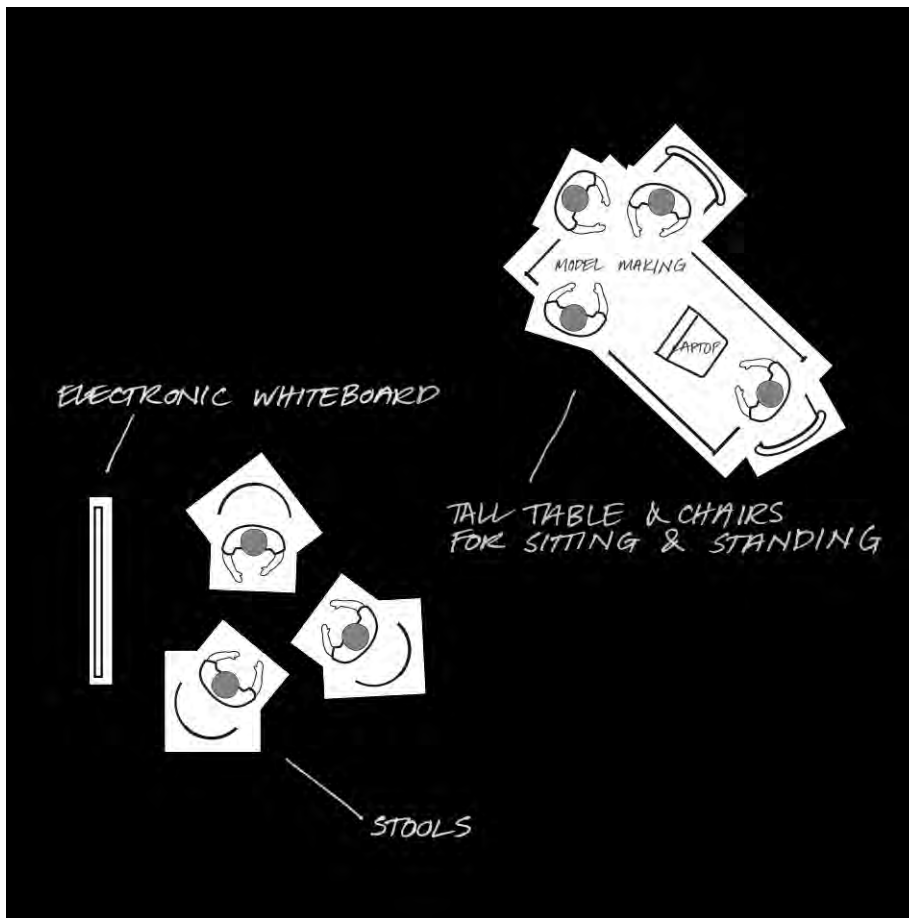


Informal seating symbol

## Step 1: Questions about human experience

For the time being, ignore everything but these questions and the learning experiences you are interrogating.

With your working group, put yourselves into the "skins" of the individuals involved in each learning experience—who are those individuals, what are their individual needs?

If both students and teachers are involved, how will a student's experience in this situation differ from a teacher's experience?

Consider the psychological and pedagogical needs of the individuals involved.

### What activities will students and teachers be doing as part of this experience?

### How many students and teachers or other individuals will be involved and for how long?

### What relationships do you want to encourage students, teachers and other individuals to have?

## Step 2: Questions about the immediate physical learning environment

Having discussed your assigned experience and the individuals involved, use these questions to provoke thought and discussion about the fundamental physical requirements for those groups and individuals.

Cut out the human and furniture shapes and use the Blu-Tak to position, and reposition, them on the black board. Once you are happy that your design reflects your intentions, secure the cut outs with Blu-Tak and annotate the design using black and white pens to include details about the furniture you want to use. For example 'stools for an informal discussion setting' or 'tall tables for students to sit or stand at for model making'.

What furniture is needed?

What access to tools, materials and technologies is required?

What facilities such as sinks, running water and power are needed?

How much floor space is required and in what configuration/s?

What specific floor coverings and furnishings are needed?

What levels of light or blackout might be required?

## Step 3: Questions about the wider physical learning environment

Now you have a sense of the size, shape and contents of your setting, use this final set of questions to consider how your learning setting relates to other learning settings and how different settings might be arranged to create connections between them.

How visually connected should this setting be to other settings?

How physically enclosed or open should it be?

What degree of acoustic separation should it have from adjacent activities?

What aspects of the physical learning setting will be permanent and why?

What elements can be reconfigured and why?

What degree of change is required?

What sort of ambience does it need?

How will learning be documented and assessed?

# 5.0   Where to from here?



Through this resource you have developed an understanding of the pedagogical philosophy behind the strategy, explored your learning experiences, designed responsive learning places and tested these for their robustness. The learning settings that you have produced are the basis for your furniture purchases, or potentially the architectural design for your new school – having started from the inside and worked your way out!

From here the conversation can continue: explore furniture product options; investigate non-standard school furniture suppliers; consider purpose built pieces that satisfy your specific needs; request furniture samples from suppliers to test and evaluate; test ideas by creating prototype learning environments using existing or improvised furniture and equipment.

Involve students in sourcing and discussing; discuss your requirements with your educational facilities planner, architect or interior designer; revisit your constructed settings to evaluate their role; continue the collaboration with your students to deeply engage them in their learning spaces – the workplaces of learning.

# 6.0  Example learning experiences

### 1.  Digital production

We are a group of four students and we want to develop our multimedia project which includes stop frame animation sequences (including video and audio) …

### 2.  Targeted teaching

I am a specialist language teacher (ESL). I meet regularly with groups of six to eight students for intensive language development. These sessions have a strong oral language focus but also involve supporting the development of the students written skills …

### 3.  Group discussion

I am a philosophy teacher. I meet regularly with groups of 10-12 students for 'Community of Inquiry' sessions. These are thoughtful, sometimes passionate discussions; key ideas are recorded for revisiting later …

### 4.  Explicit instruction (adjacent to learning common)

I am a maths teacher. I want to demonstrate to a group of 18 students how to solve a particular type of problem and then allow them to quickly return to the project that they have been working on …

### 5.  Non-messy construction (with access to ICT)

We are a group of three students. We are exploring some engineering and design concepts and have been building many different structures together using wooden blocks. We are keen to document our experiments using digital photography and to write about what we did and what we found out …

### 6.  Food preparation

We are a group of five students and we are preparing a light lunch for a group of visitors. We've been outside to pick some fresh fruits and veggies from the kitchen garden …

### 7.  Small conferencing area

I am a teacher. I need to meet regularly with each student (for whom I have particular responsibility) to review their progress and to negotiate their individual curriculum/learning plan …

### 8.  Display

I am a teacher working with students who have been exploring light & shadows over several weeks. The students have made some very insightful drawings that I want to display as a reminder of what they have discovered & to inspire them to experiment further. These displays are intended to inform other students, parents and the teaching team …

### 9.  Large group gathering

We are a community of 70 students, three teachers & two teacher aides. We like to meet together at least once a day to discuss all sorts of things. Sometimes this includes sharing digital media …

### 10. Intimate area

I am a student. I am feeling low today – it was a bad night at home last night. I am going to meet my best friend and perhaps we'll have a game of chess …

### 11. Teacher preparation space

We are a team of four teachers. We need to meet regularly to discuss our community of learners, their projects and to anticipate future learning needs and experiences …

### 12. Personal study space

I am a student and I would like to study quietly alone …

### 13. Learning commons

We are a group of 5 students who have been investigating patterns of television watching. Today we want to discuss our findings and how to present them to the group …

### 14. Messy project area i.e. studio-lab

We are a group of three students. We have been growing tomato plants to investigate plant growth and development. We need to bring five plants in from outside to measure and record plant height, leaf number, leaf shape, soil moisture levels etc …

### 15. Discrete discussion area

I am a parent of a student and I want to speak briefly and discretely to one of the teachers about my child's learning needs …

### 16. Student storage space

I am a student. I need to stow my belongings when I arrive at school in the morning and have access to them on a number of occasions during the day …

# 7.0   Project examples

The following pictures represent a random selection of innovative learning environments. Be inspired!

# 8.0   Acknowledgements

**CEFPI Australasia (Victorian Chapter) would like to thank the "Stuff It" Forum Working Party:**

**Ben Cleveland**
Is a primary and secondary school teacher, currently completing his PhD within the Smart Green Schools, ARC Linkage Project in the Faculty of Architecture, Building and Planning at The University of Melbourne.

**Jo Dane**
Is an interior designer with Woods Bagot Architects, recently a lecturer at Monash University and a PhD candidate: "New Generation Learning Environments for Higher Education"

**Mary Featherston**
Is a noted interior designer. She is a member of the Design Institute Hall of Fame, and has spent decades designing learning environments for children. Senior Fellow The University of Melbourne.

**Kellee Frith**
Is a designer and PhD candidate in the Faculty of Design at Swinburne University of Technology. Her interior design research sits within the ARC Linkage Project "The School: Designing a dynamic venue for the new knowledge environment."

**Sandy Law**
Is an architect and Director of Law Architects. She has extensive experience in education facilities, particularly within the Catholic education system.

**Richard Leonard**
Is an architect and Director of Hayball Architects. He is also the CEFPI Victorian Chapter President.

**Ken Woodman**
Is an architect, currently completing his PhD within the Smart Green Schools, ARC Linkage Project in the Faculty of Architecture, Building and Planning at The University of Melbourne.

In particular, CEFPI acknowledges the input of Mary Featherston who, with the PhD candidates Ben Cleveland, Kellee Frith and Ken Woodman, was instrumental in providing the intelligence, experience and expertise in planning the forum and developing this guide.

**Other Acknowledgements**

CEFPI also acknowledges and thanks:

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– Department of Education and Early Childhood Development, Victoria

– Production assistance by Angus Smallwood of Old Bull Productions

All of the "Stuff-it" forum participants, all of whom have contributed to this guide by their support of CEFPI and their participation in the forum.

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**Photographic Acknowledgements**
Where not attributed photographs used in this document have been selected from the CEFPI Design Awards Program.

# 9.0   Facilitator's check list

### Time

Please allow a minimum of 2 hours to complete this workshop.

### Workshop Venue

Organise tables and chairs so that working groups of between 4 and 6 people can comfortably collaborate.

### Participants

How many participants will be involved? Divide participants into working groups considering the composition of each group in terms of maximising the potential for good collaboration.

### Materials Shopping List

For each working group you will need to buy:

– 1 x A2 black board (cut to 42cm x 42cm square)

– 1 x pair of scissors

– 1 x black pen

– 1 x white pen

– Blu-Tak (1 packet divided amongst working groups should be enough).

### Resources

Print out one set of people and furniture shapes for each working group.

The shape templates are supplied in the Resources section of the Facilitator's Guide.

Allocate one learning experience per working group. You can either use the Example Learning Experiences listed in the Facilitator's Guide, or substitute the experiences you envisage for your school community as you work your way through the strategy.

### Workshop Video

Make sure that all the working groups can clearly see the video throughout the workshop. A large projection screen or interactive whiteboard are ideal, a TV monitor will probably be too small.

As the workshop facilitator you will need to operate the Workshop Video, pausing it and resuming play throughout the workshop, so make sure you have easy access to the controls.

### Workshop Running Sheet

On the following page is a running sheet that you can use to plan the timing of your workshop. Each step in the workshop is listed on the right.

Please insert the times that correspond to how much time you have available for the Workshop on the left. This will help keep you on track.

# Running sheet – to help you stay on track

Set up furniture and data projection.
Distribute resource materials to each working group table.

Welcome to participants and direct them to their working groups.

Commence the Video presentation.
**Play Chapters 1 and 2.**

Pause the Video at the end of Chapter 2 to check that the
working groups have everything that they need.

Recommence the Video presentation.
**Play Chapters 3, 4 and 5.**

Pause the Video at the end of Chapter 5 leaving the first set of questions on screen for
participants' reference while they begin to discuss their assigned learning experiences.
*Allow at least 30 minutes for this task.*

Recommence the Video presentation.
**Play Chapter 6.**

Pause the Video at the end of Chapter 6 leaving the second set of questions on screen
for participants' reference while they begin to discuss their learning setting.
*Allow at least 30 minutes for this task.*

Recommence the Video presentation.
**Play Chapter 7.**

Pause the Video at the end of Chapter 7 leaving the third set of questions on screen for
participants' reference while they continue to discuss their learning setting.
*Allow at least 30 minutes for this task.*

Recommence the Video presentation.
**Play Chapter 8.**

Pause the Video at the end of Chapter 8 while participants formulate their design
rationales.
*Allow at least 10 minutes for this task.*

Recommence the Video presentation.
**Play Chapter 9.**

**Discussion**
Encourage participants to bring their learning settings together and discuss how
different settings might be arranged to create connections between them.

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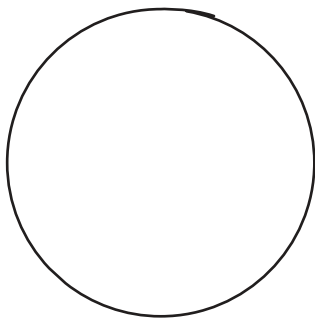
Table - circular
size (diameter)
height (standing or sitting)
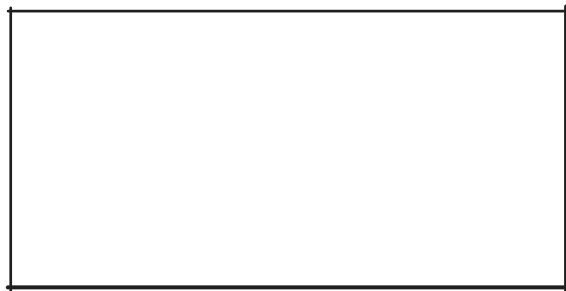
Table/Bench
rectangular/square
size (dimensions)
height (standing or sitting)
workbench
sloping top

Podium - raised floor
fixed or movable
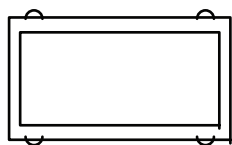
Trolley

Communication Panel
whiteboard, eBoard, magnetic
pin-up, space divider, mirror
fixed, mobile
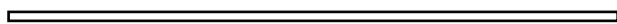
Projection Screen
roll-down, painted wall
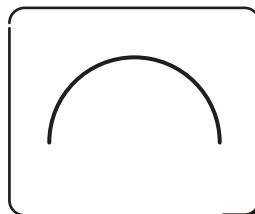
Informal Seating
lounge chair
beanbag
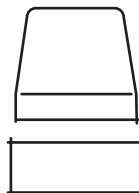
Computer
desktop /laptop /notebook

Printer / Scanner
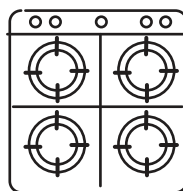
Cooking Facility
cook top
oven
microwave
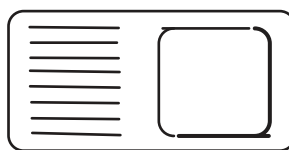
Sink/ Water
science lab sink (+gas)
kitchen sink
studio sink
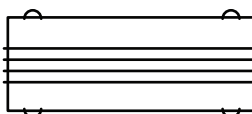
Easel

Drinking Fountain
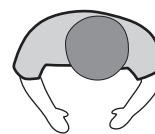
Teacher/ Adult
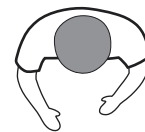
Student/ Young Person
standing
sitting
walking
performing
teaching
presenting
meeting

Display Case
free-standing
wall fixed

Storage - book depth
open, closed, lockable
fixed, free-standing, mobile

Storage - locker depth
open, closed, lockable
fixed, free-standing, mobile
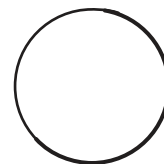
Stool / Ottoman
sitting ht.
standing ht
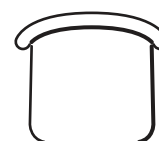
Seating
dining chair
ergonomic/task chair
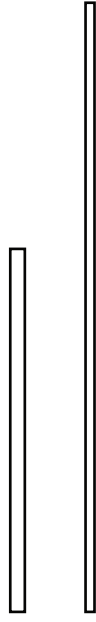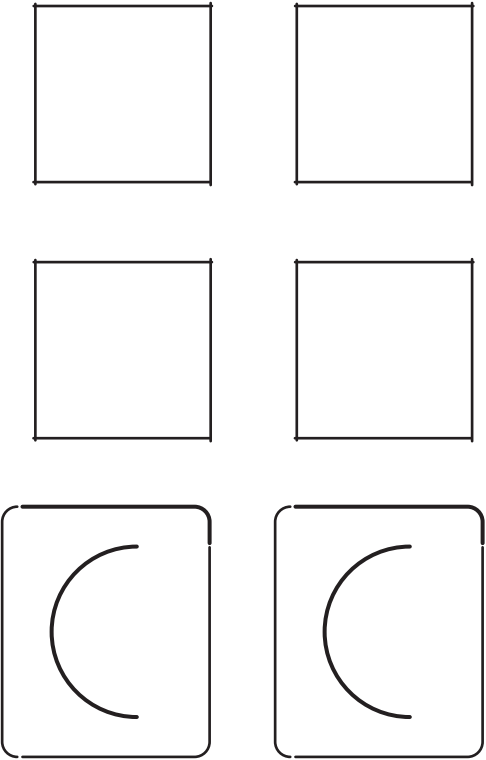seminar chair

STORAGE & DISPLAY
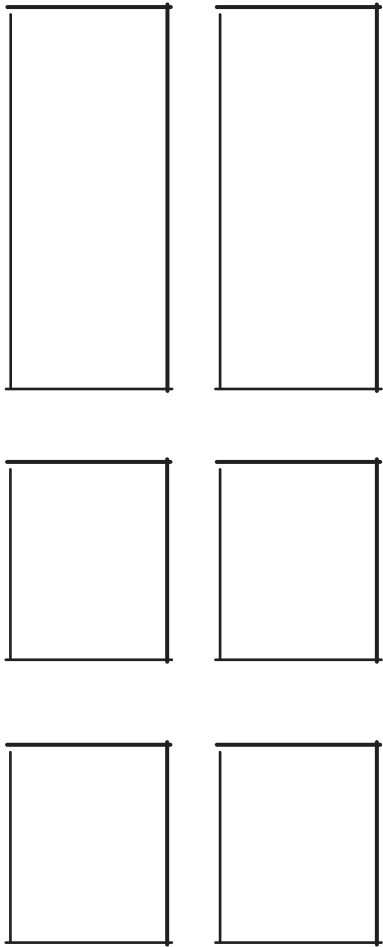
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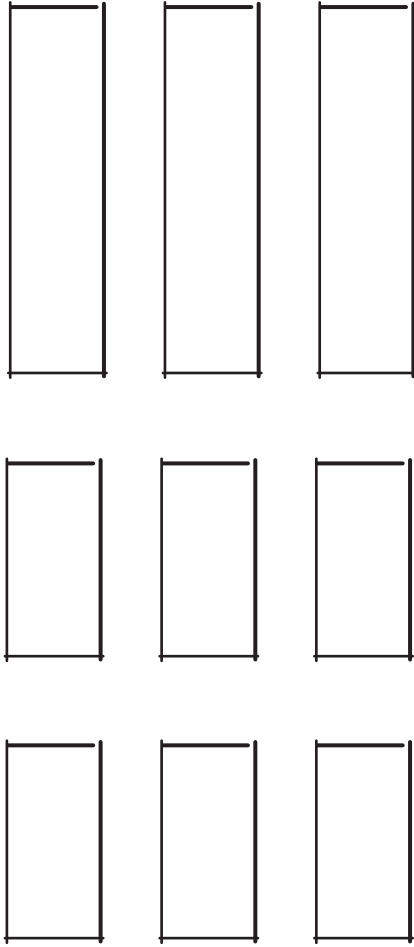
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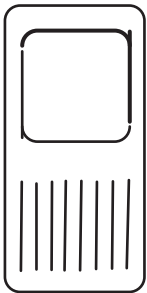
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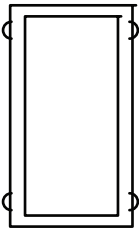
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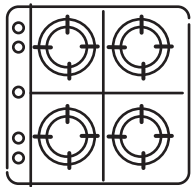
MOBILE EASEL

COMPUTERS & SCANNER/PRINTER
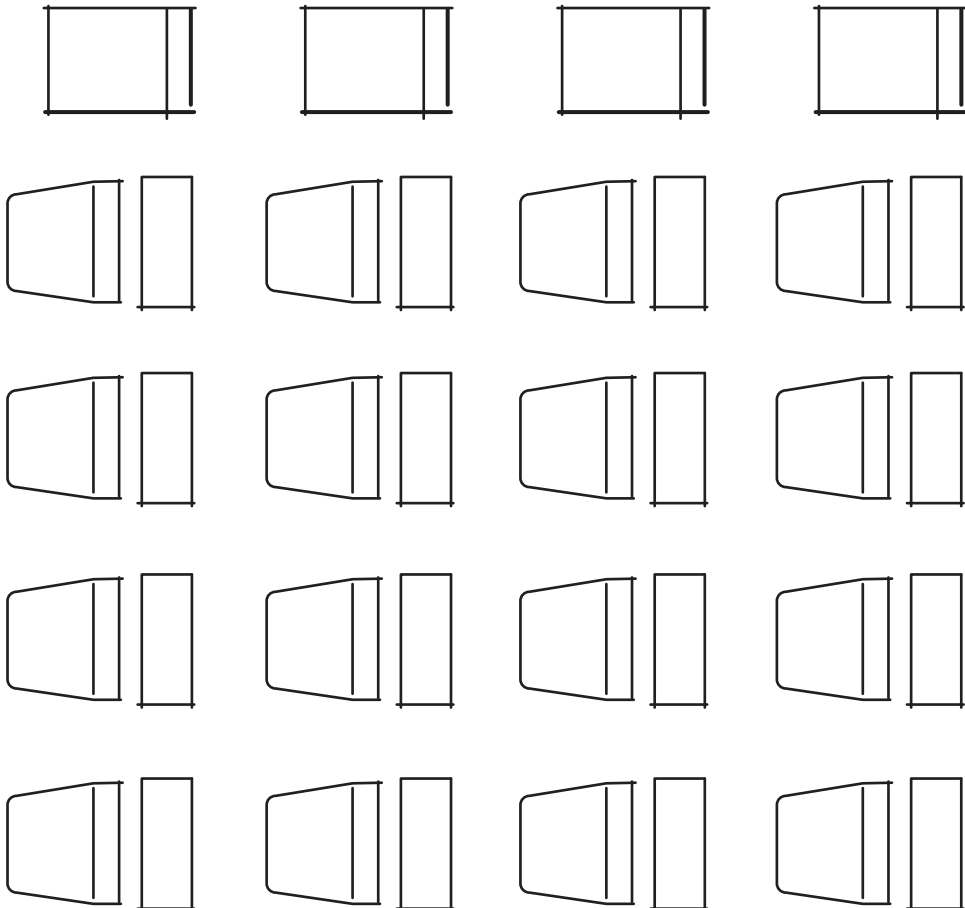
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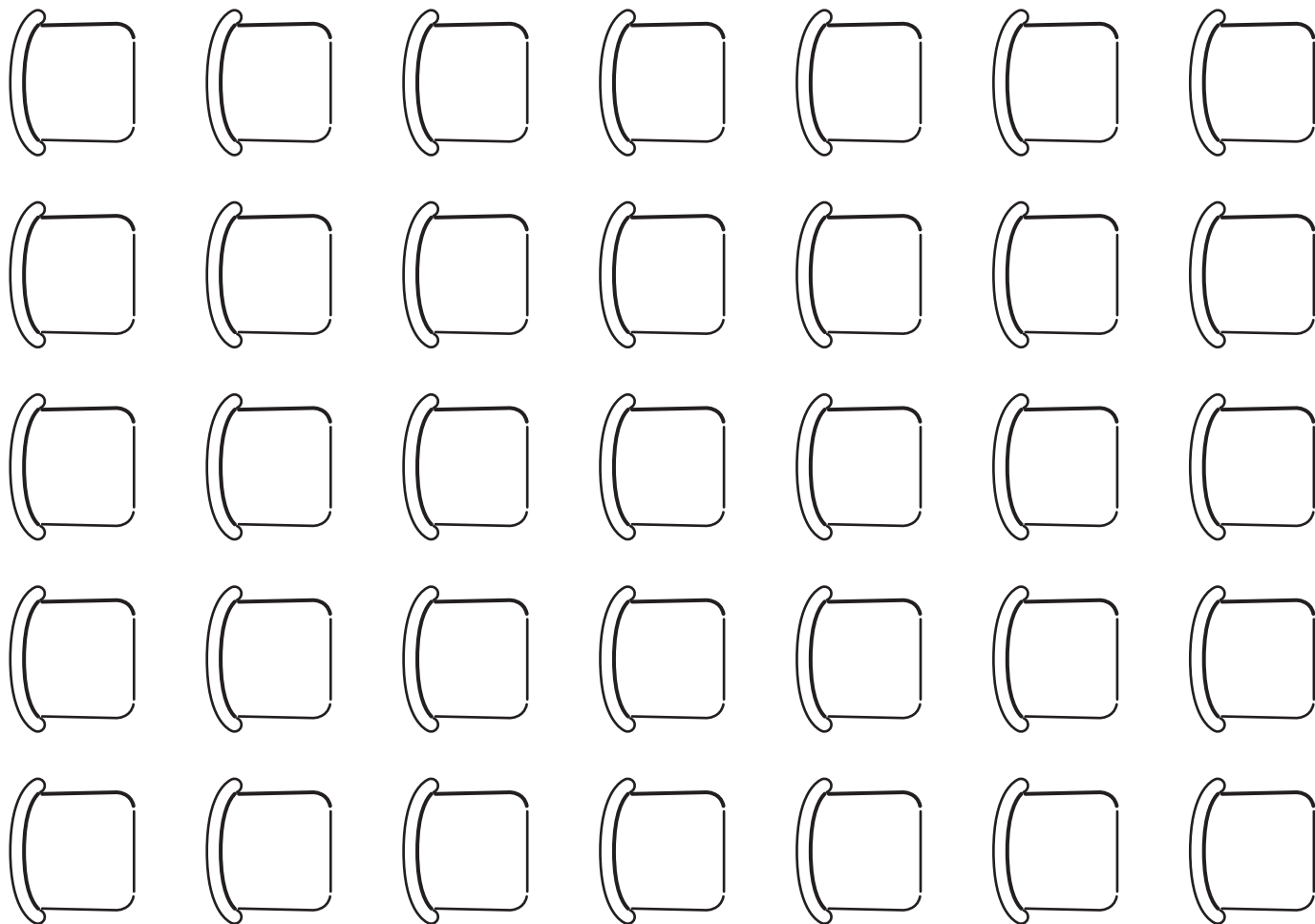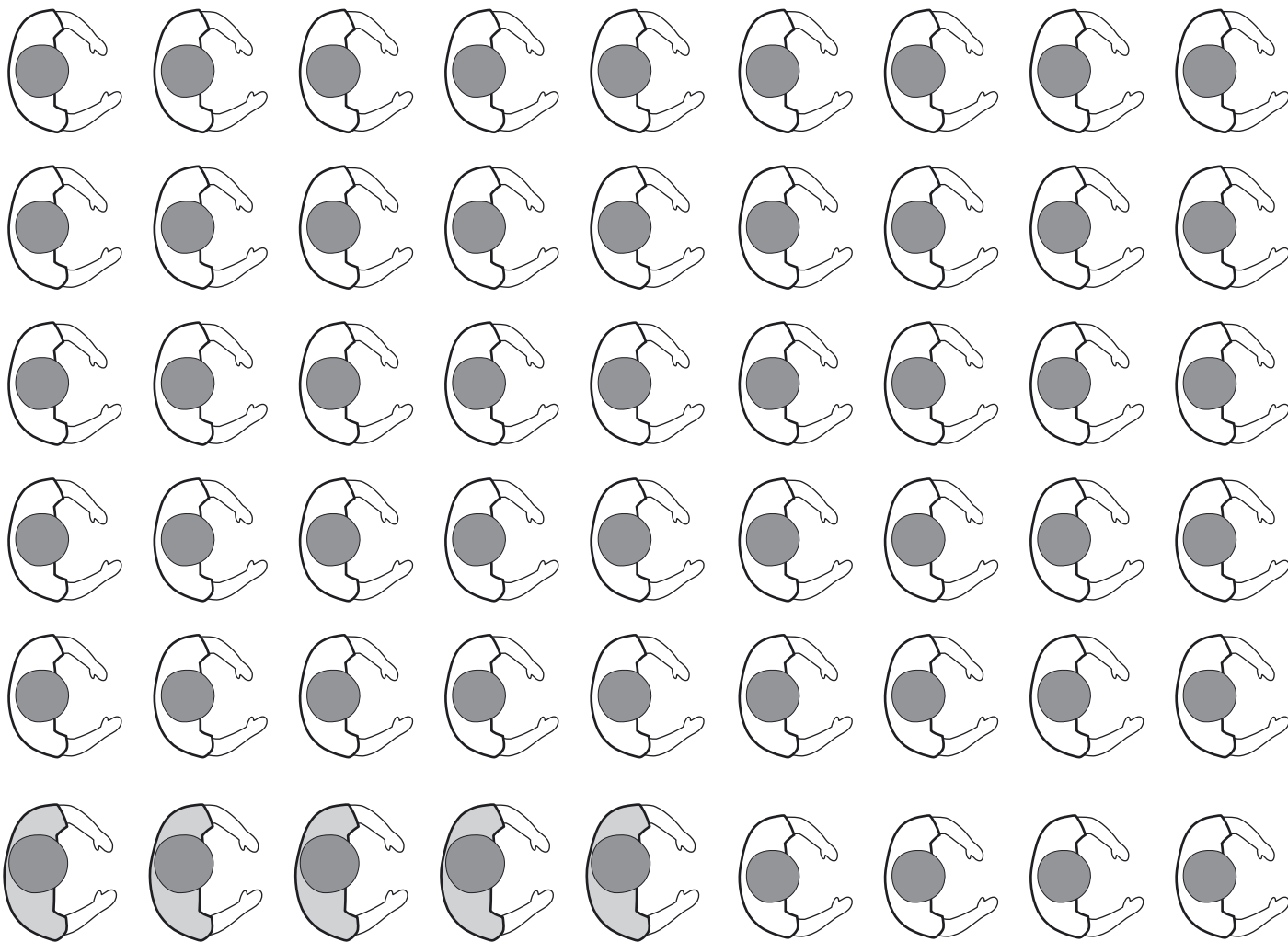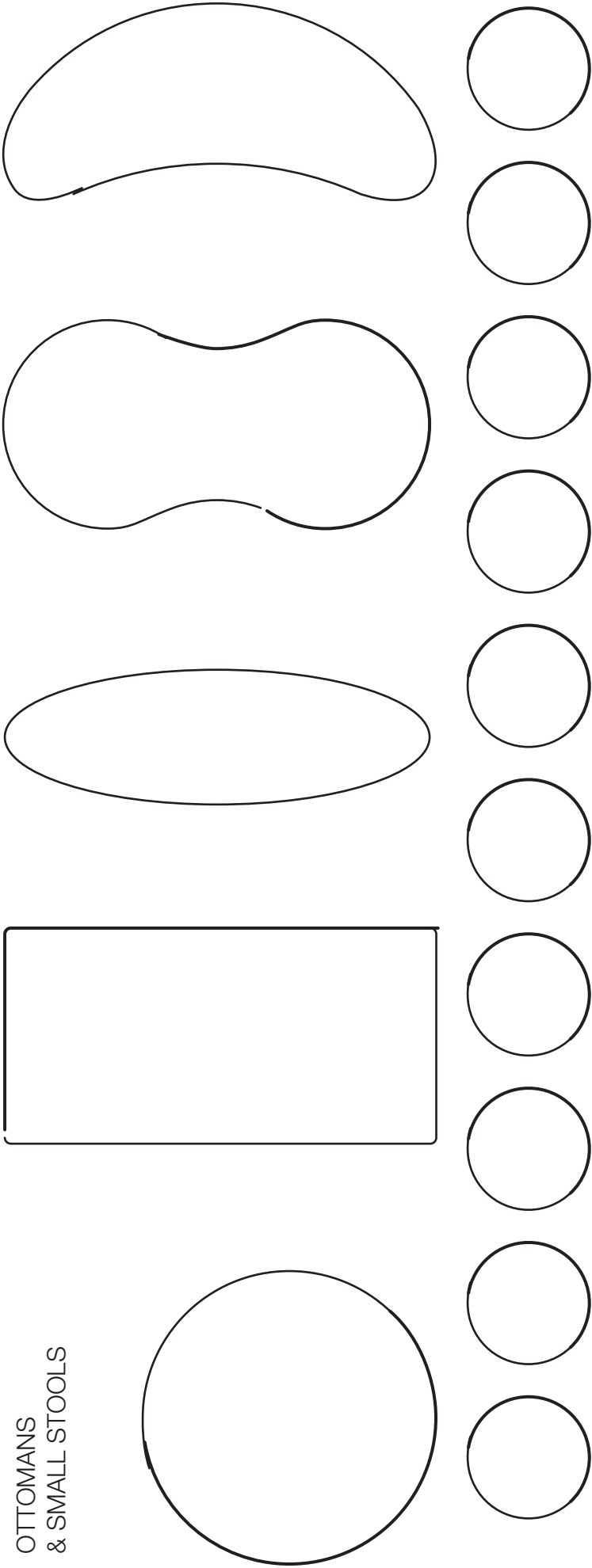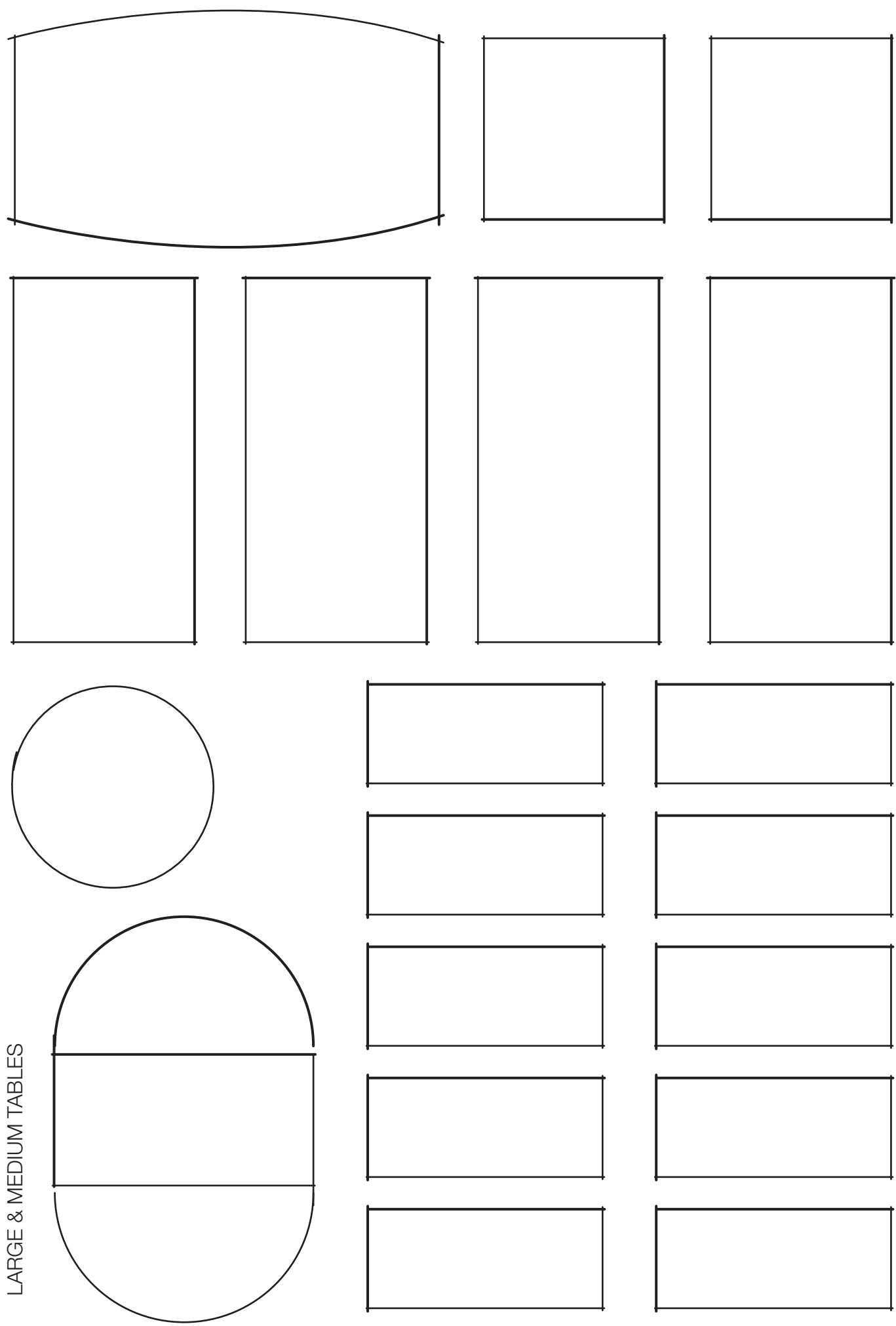
SIDE TABLES

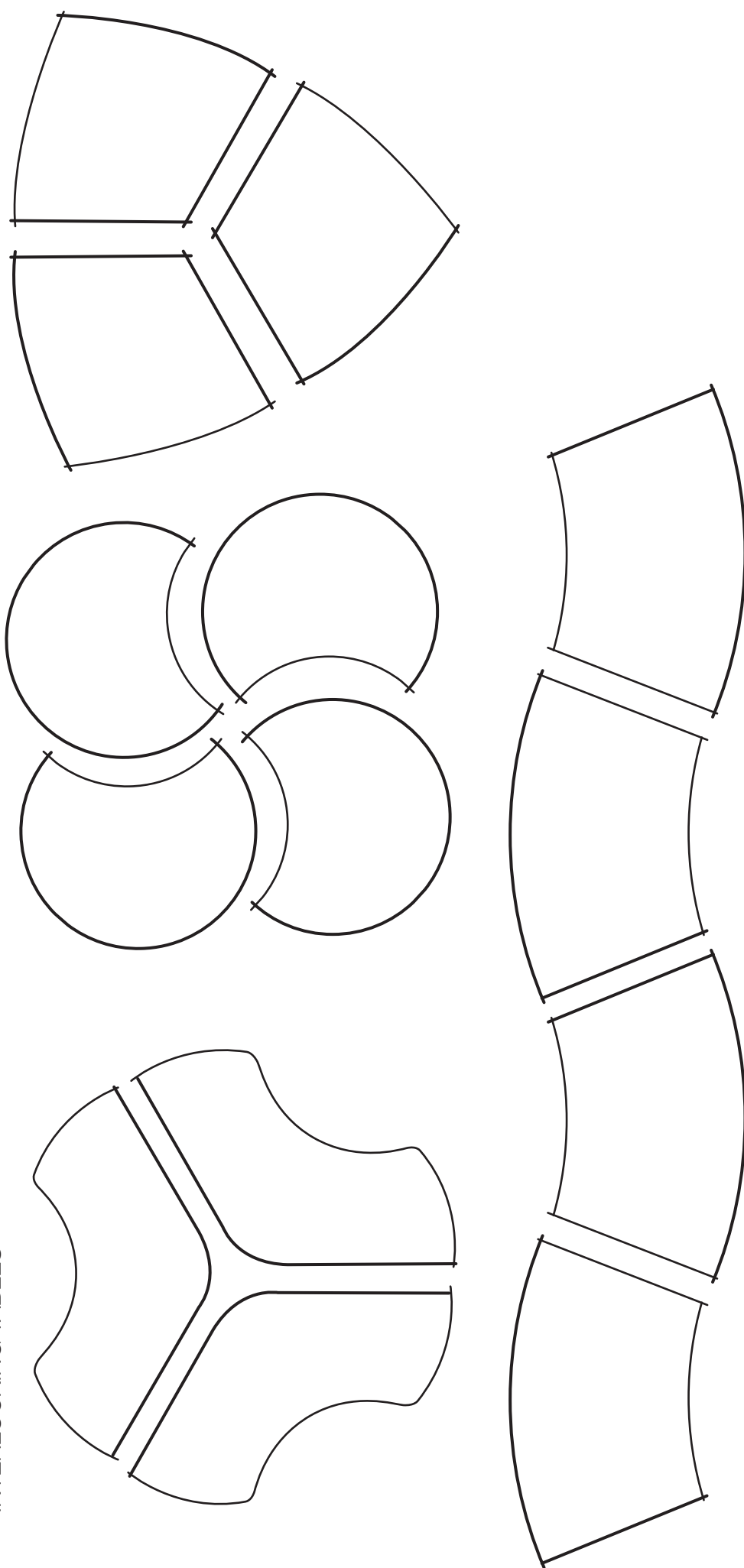INFORMAL SEATING
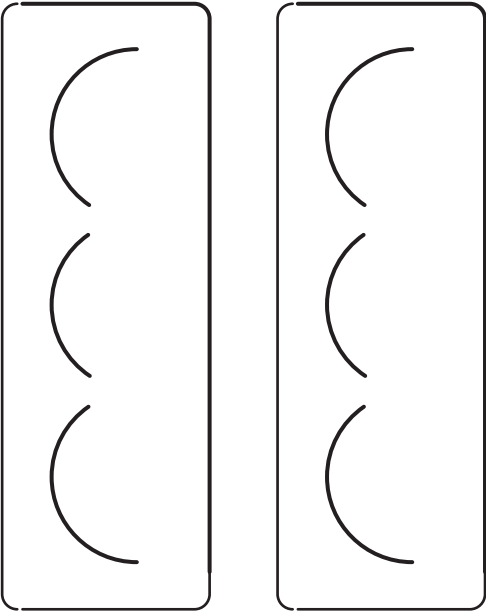
OTTOMANS
& SMALL STOOLS

LARGE & MEDIUM TABLES

NOTE: Please print this page on A4
at 100% to ensure the scale is correct

INTERLOCKING TABLES

SCALE 1:25    METERS

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