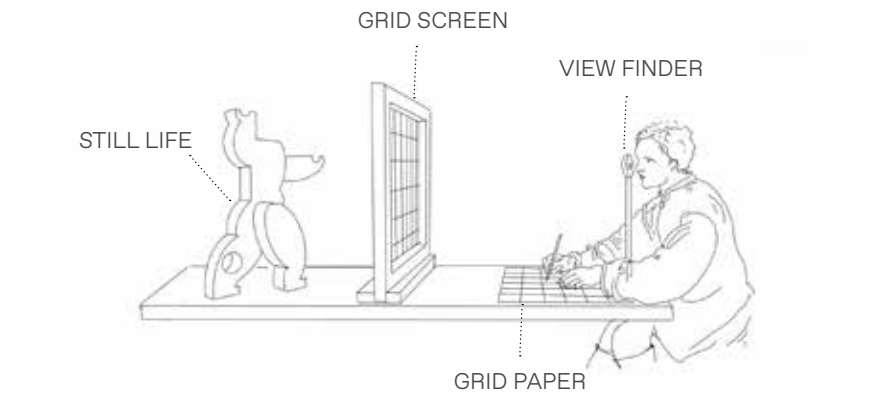
ACTIVITY 1 PRINTABLE

Renaissance Perspectograph

Gridded drawing paper



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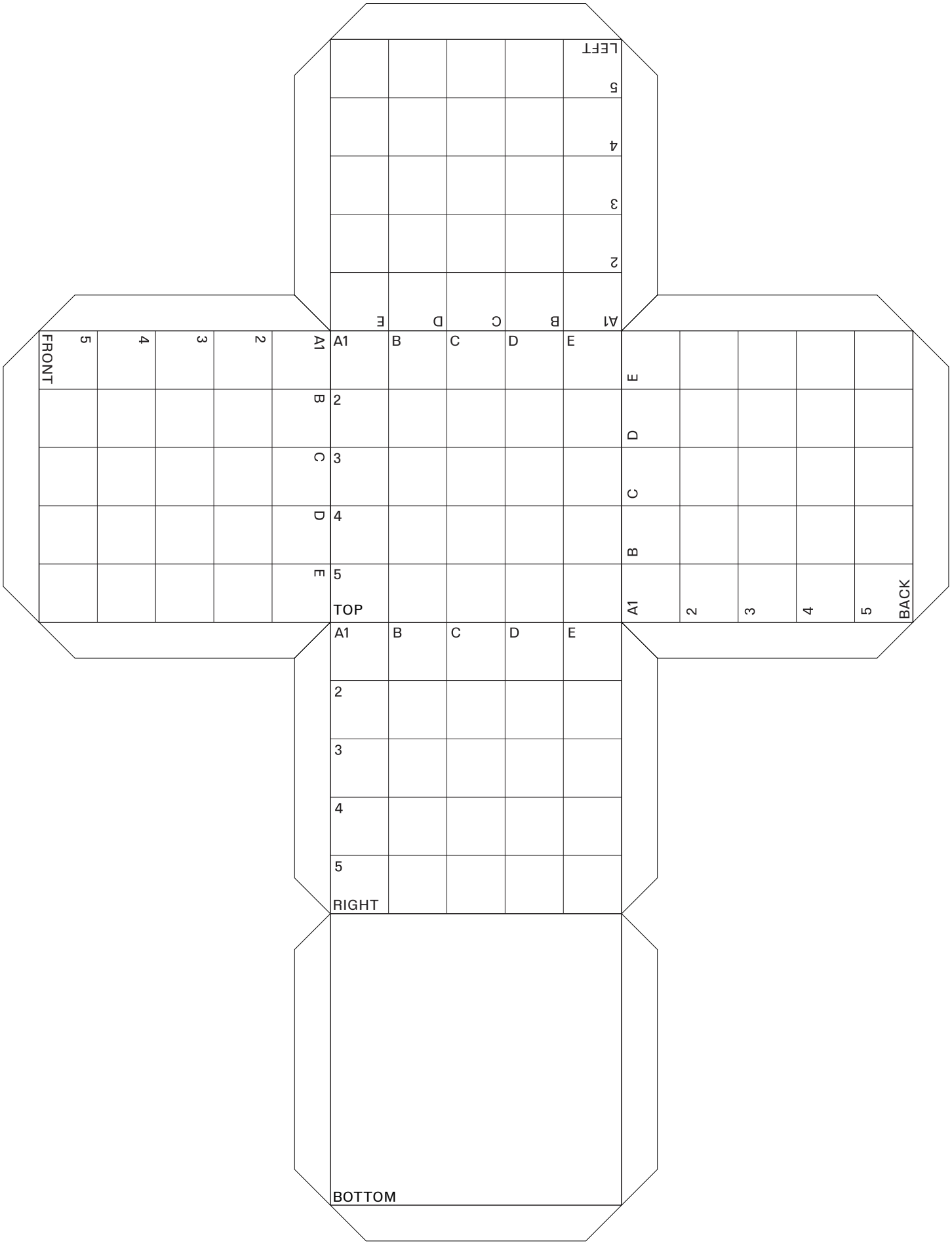
ACTIVITY 2 PRINTABLE

Cubist Projection Box

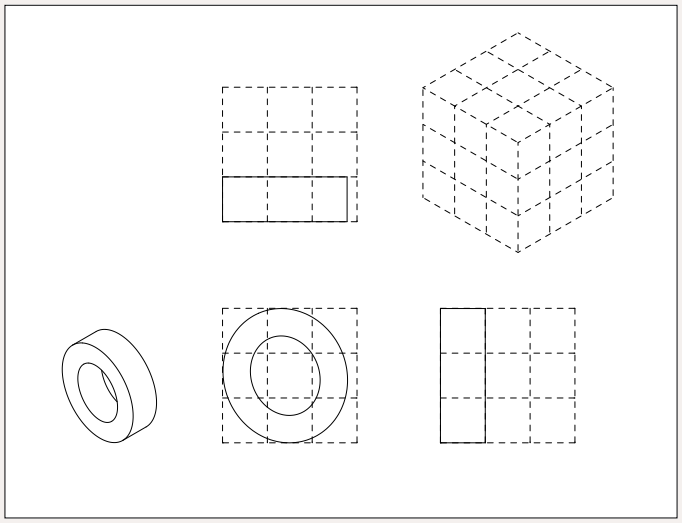
"Unfolded cube" drawing sheet



Isometric Drawing Activity

From 2D to 3D: Drawing Loose Parts in Isometric Space

This activity helps you understand how 3D objects can be represented on 2D paper using orthographic projections and isometric drawing techniques—the same methods architects and engineers use to design buildings and products.



Step 1: Choose Your Objects

• Choose a loose part shape you like from the mat in the gallery

•Find the corresponding drawing on the worksheet

•Pick one object to start with (cube, cylinder, or curved piece)

•Study its shape carefully—notice its height, width, and depth

Step 2: Find Your Grid

•Use the dotted isometric grid on the right side of your worksheet

•Notice how the grid creates a 3D-looking diamond pattern

•This special grid helps you draw 3D objects that look three-dimensional on flat paper

You'll draw your entire object within this one cube

Each face of the cube shows a different view of your object

Step 3: Map Each Face

•Front face: Draw what you'd see looking straight at the front

•Side face: Draw what you'd see from the side

•Top face: Draw what you'd see looking down from above

•Show how your object fills the space inside the cube

Step 4: Think 3D

•Imagine your object sitting inside a glass cube

•Draw what appears on each visible wall of the cube

•All three views should show the same object from different angles

•Imagine you're looking down at the objects from slightly above

•Consider which surfaces you can see and which are hidden

•Think about how architects draw buildings before they're constructed

While Drawing:

•How does drawing on the isometric grid change how you see the 3D objects?

•Which is easier—drawing what you see in real life, or drawing from the flat diagrams?

•How might architects use this type of drawing when designing buildings?

After Completing:

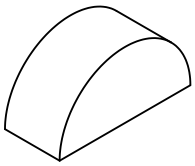
•How does your isometric drawing compare to what the actual loose parts look like?

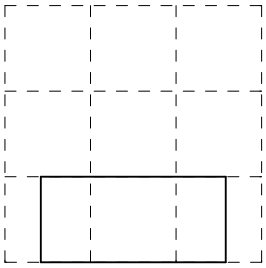
•What information does this type of drawing show that a photograph might not?

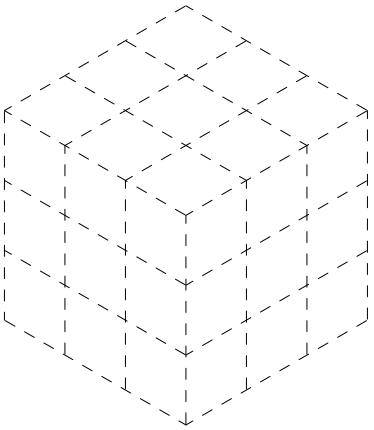
•How could this skill help you plan or design your own creations?

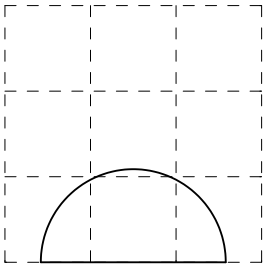
Extension Activity

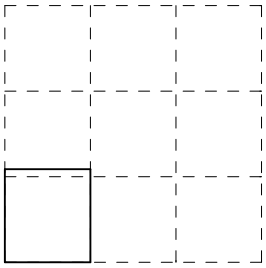
Try creating your own loose parts combination. Draw several pieces arranged together as if you were building a sculpture or structure.

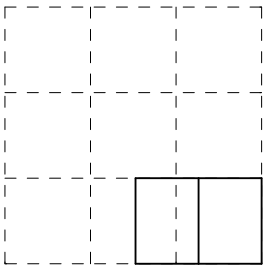


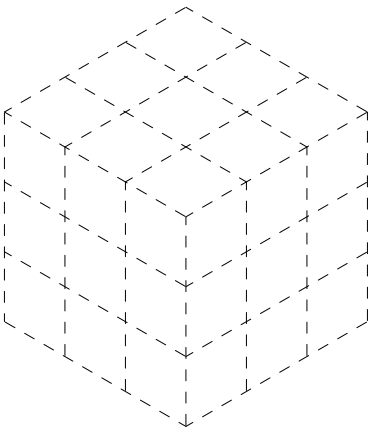


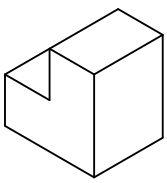


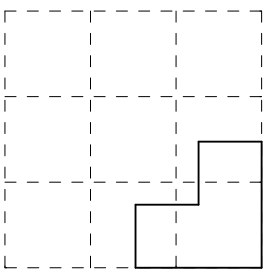


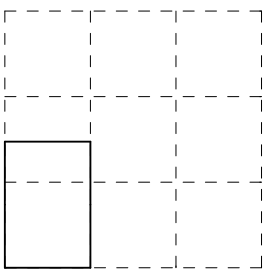


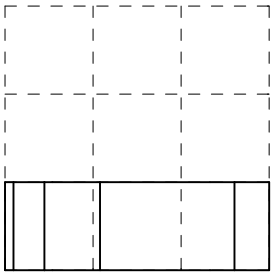


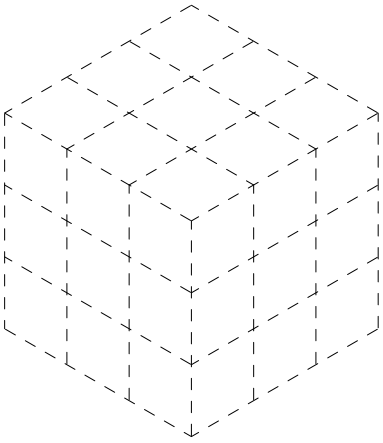


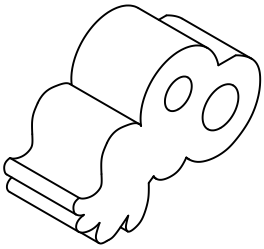


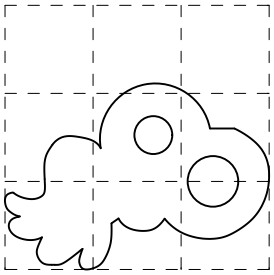


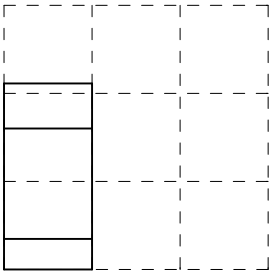


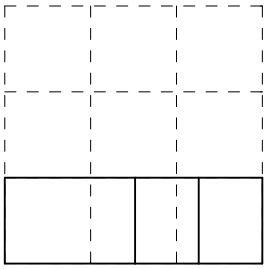


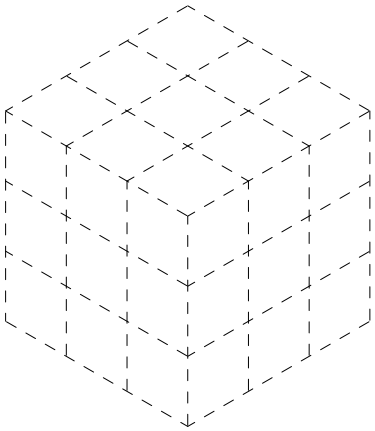


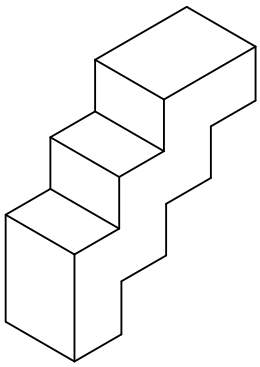


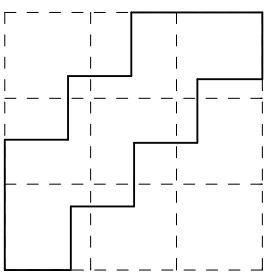


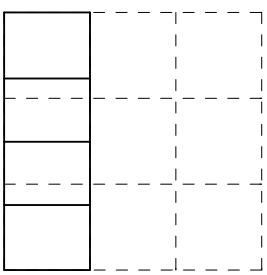


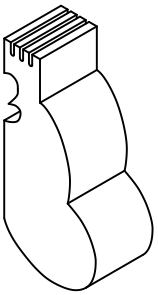


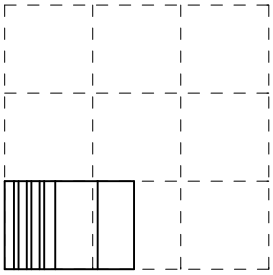


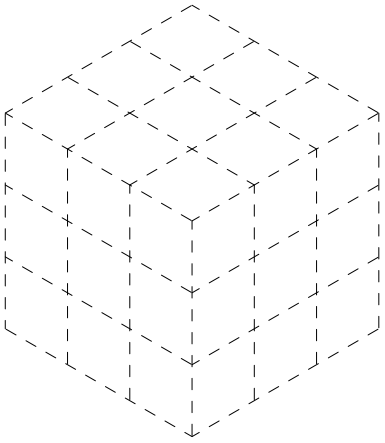


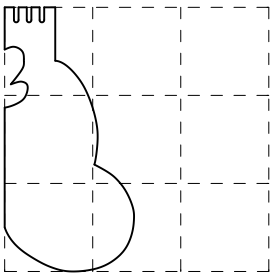


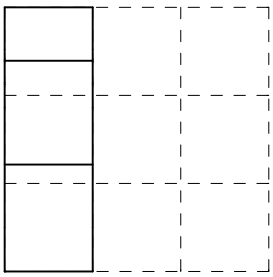


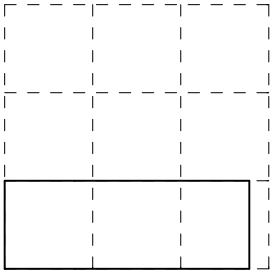


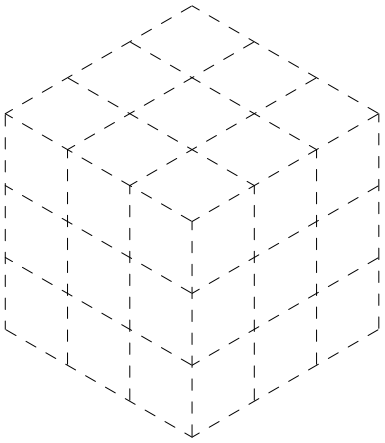


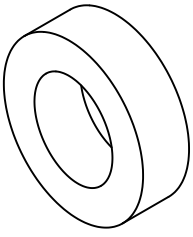


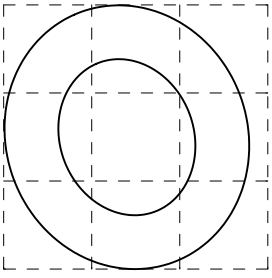


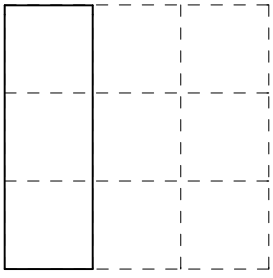




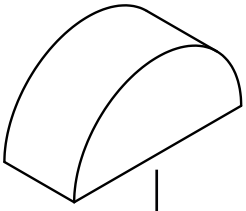


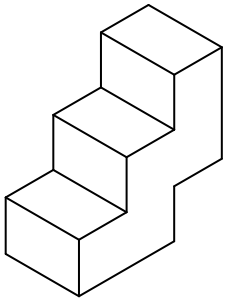


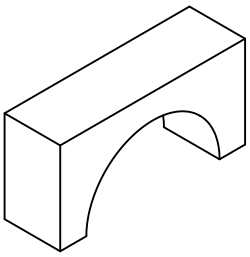


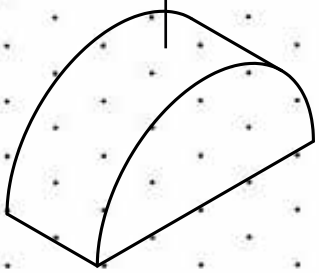


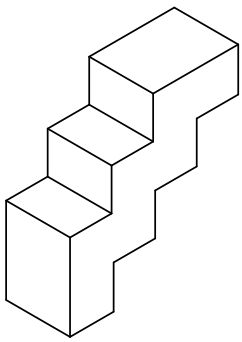
Sketch these loose part shapes into the isometric grid below.

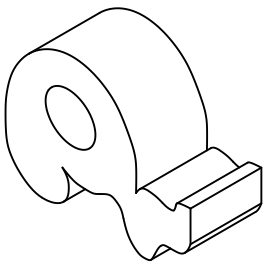


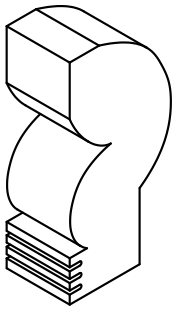




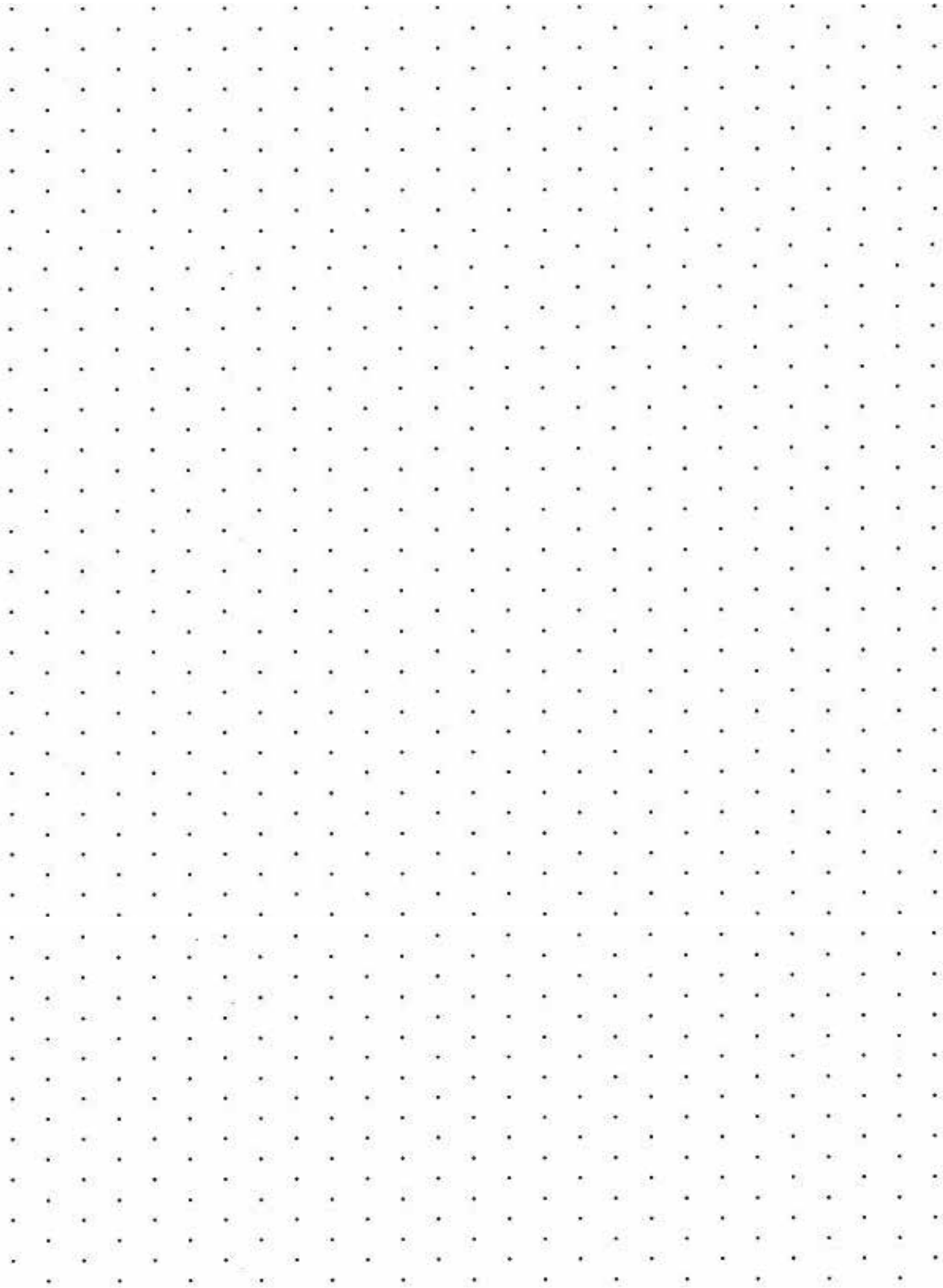


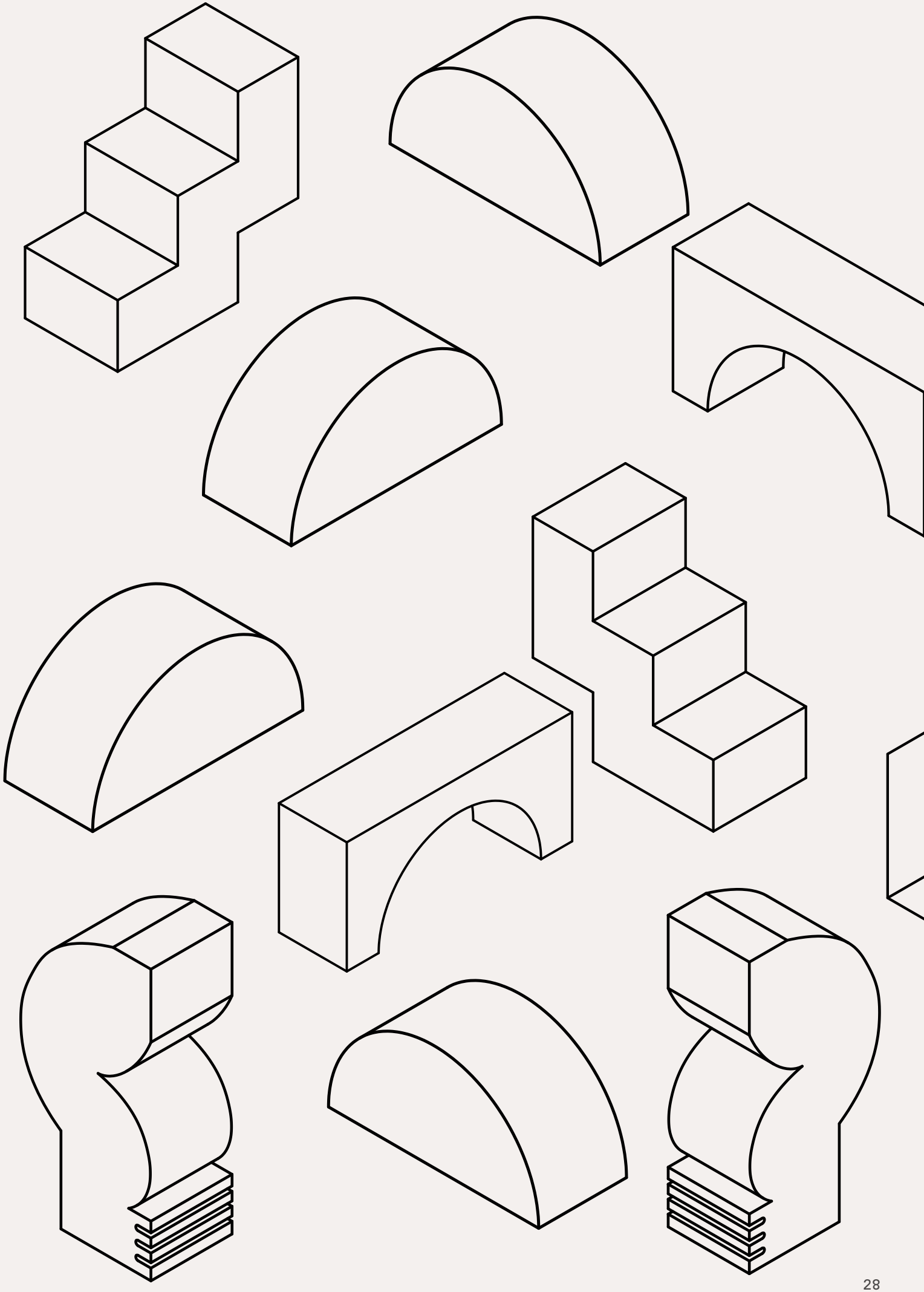


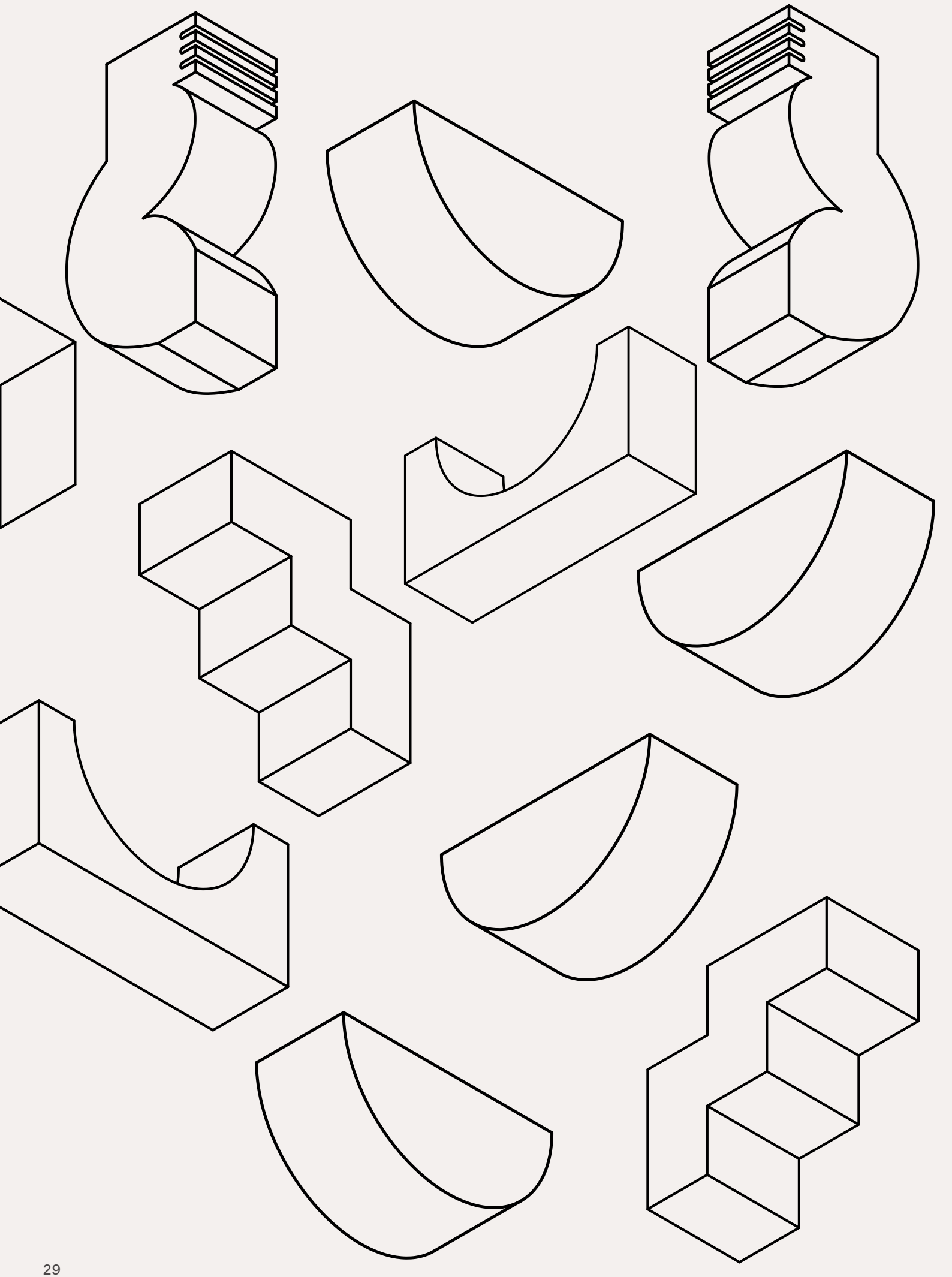




Try designing your own sculptures in the isomestric grid on this page.







Your Drawing

YOU ARE NOW THE ARTIST! COMPLETE THESE UNFINISHED DRAWINGS USING YOUR OWN CREATIVE VISION WHILE APPLYING WHAT YOU'VE LEARNED ABOUT OBSERVATION AND PERSPECTIVE.

Instructions

Step 1: Observe Carefully
Look at the shapes and forms that are already drawn
Notice the curves, angles, and proportions that have been started
Consider what these abstract forms might become

Step 2: Apply Your Learning
Think about the multiple perspectives you explored in the drawing activities
Remember that there's no single "correct" way to complete these forms
Consider how the same shape might look different from various viewpoints

Step 3: Complete the Drawing
You can choose to:

Complete the figure: Add missing parts to create a complete human form
Transform it entirely: Turn these shapes into something completely different (an animal, a landscape, an abstract design)
Add environment: Draw a setting or background that gives context to the forms
Create patterns: Fill the shapes with textures, patterns, or colors that interest you

Step 4: Make It Your Own
Use any drawing tools available (pencils, colored pencils, markers, crayons)
Add details that reflect your personal style and interests
Don't worry about making it "look right"—focus on making it meaningful to you