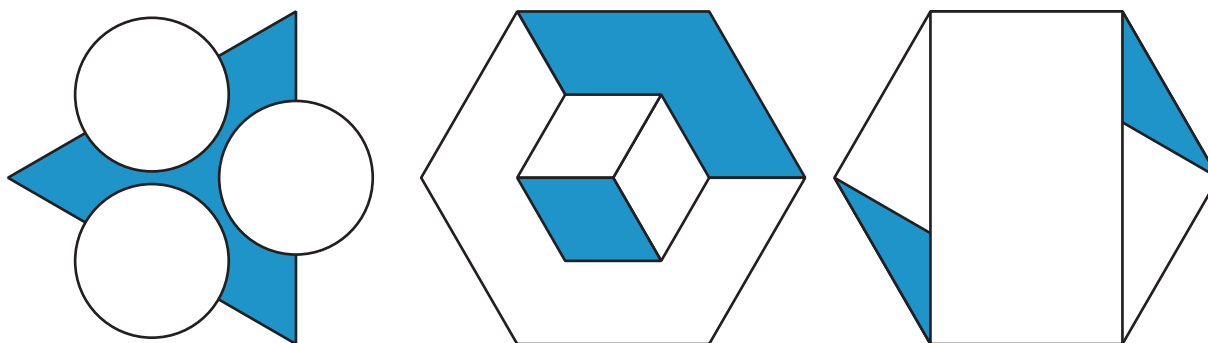


Lesson 22: Now What Can You Build?

- Let's construct some creative shapes.

22.1: Notice and Wonder: Dramatic Designs

What do you notice? What do you wonder?



22.2: Duplicate a Design

Your teacher will give you a collection of designs that all began from the construction of a regular hexagon. Choose one to use.

1. Record any rigid motions (rotation, reflection, or translation) you see in your design.
2. Use straightedge and compass moves to recreate the design.
3. Write down instructions for how to construct it.

22.3: Make Your Own Design

Use straightedge and compass moves to create a new design.

Write down the moves you followed on that same sheet of paper so someone else can recreate your design.

Are you ready for more?

Construct a tessellation with rotation, reflection, and translation symmetry.

22.4: Make Their Design

1. Follow the instructions to make a design.
2. List everything in the design that is congruent. Explain how you know.

Lesson 22 Summary

There is a deep connection between geometry and art. Using simple construction tools, it's possible to create beautiful patterns. Precisely recording instructions for a pattern allows other people to make the same pattern and enjoy it for themselves! These same ideas can be applied in three-dimensional space to create the objects we use and appreciate every day.