

Make a Repeated Pattern

Can you make a repeated pattern?

ENGAGE

We live in a world full of symmetry and math. Artists and designers can get ideas from this. Provide each student with the Make a Repeated Pattern worksheet template. Ask students to study the images on the first page. Then provide an opportunity for students to respond:

- What can you see?
- What patterns can you see?
- Can you make something repeat a pattern?

The Make a Repeated Pattern worksheet template can be accessed at this link:

<https://education.lego.com/v3/assets/blt293eea581807678a/blted5e4b4499c5523a/5e4e4e67cbab57baf993f72/repeated-pattern-student-worksheets-elementary.pdf>

EXPLORE

Have students work through the design process to help them decide on how to make a repeated pattern and what problem it would solve. Students should complete: Find A Problem, Brainstorm, Choose the Best Idea, and Go Make sections ONLY.

EXPLAIN

Once they have completed their first prototype, reengage students in a conversation:

- Explain the problem you are trying to solve.
- Describe your solution.
- What was challenging?
- How did you overcome the challenge?
- What was successful?

ELABORATE

Have students return to their builds. Provide them additional time to reflect on their models. Students should fill out the "Evaluate What You Have Made" and write down three suggestions they would like to make for improvement.

EXTEND

If there were no constraints (i.e., not just limited to the available LEGO bricks/elements), what would you want to make your design even better? Describe these upgrades in detail.