

# DESIGN IT!

GRADES 4-5



Name: \_\_\_\_\_

Semester or Trimester: \_\_\_\_\_

Year: \_\_\_\_\_

Teacher: \_\_\_\_\_

Class Section: \_\_\_\_\_

# DESIGN IT!

GRADES 4-5

## THE ENGINEERING DESIGN PROCESS

1

Define a problem or a need.



2

List criteria and constraints.



3

Describe a possible solution using science principles.



4

Design and construct a possible solution.



5

Describe the cost, safety, appearance and environmental impact of the solution as well as what will happen if the it fails.

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## **Introduction**

Just as scientists use the science inquiry process to extend human knowledge, engineers use the engineering design process to build and improve things to meet human needs and fulfill human hopes. In other words, the engineering design process is one way to put science to work to solve problems.

This notebook represents the work of the student named on the front cover during a particular semester or trimester. Students record their work as they proceed through steps of the engineering design process while they explore how science can be used to solve practical problem.



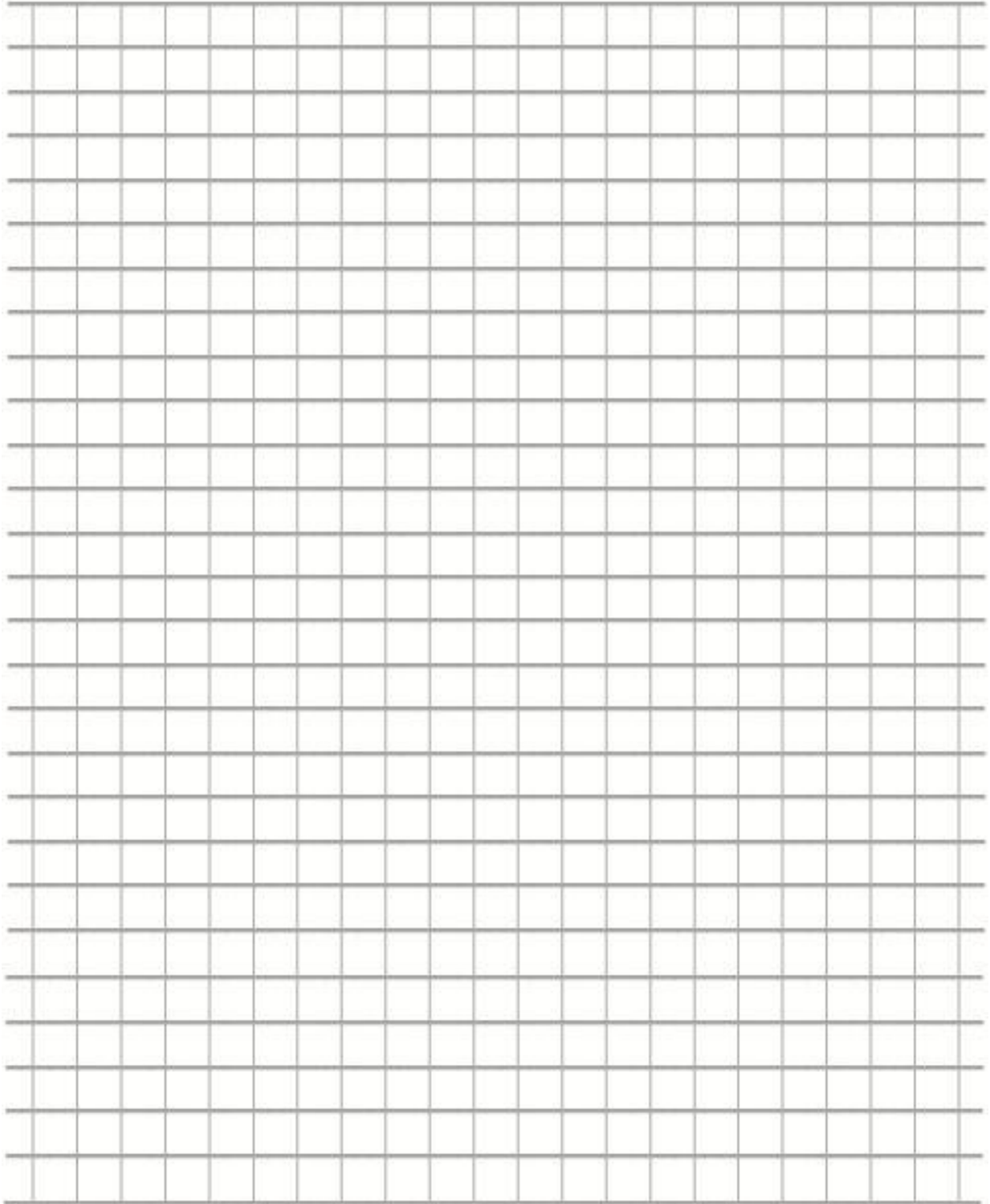




4

## The Design

Design and construct a possible solution:

A large grid of graph paper, consisting of 20 columns and 25 rows of small squares, intended for drawing a design.





