Following a simple Engineering Design Process

ASK

What is the challenge?

What constraints do I have?

What materials can I find?

What do I want to achieve?

IMAGINE

What might I make?

What might it do?

How can I make it different?

What range of possibilities exist?

PLAN

Draw a picture and a design

Make a materials list

Think about different methods of construction and choose one

Write some construction steps

CREATE

Make a prototype

Experiment with different approaches to making its parts

Construct a working version and try it out

IMPROVE

Consider any problems or improvements to your design

Explore and record improvements you would like to make or ways of making it work better