

# SCIENCE FAIR CENTRAL

## ENGINEERING DESIGN PLANNING SHEET

**Project Title:** \_\_\_\_\_

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### Ask

Identify a problem you want to solve.

\_\_\_\_\_ Approved  
\_\_\_\_\_  
\_\_\_\_\_

### Imagine

Brainstorm ideas and solutions.

\_\_\_\_\_ Approved  
\_\_\_\_\_  
\_\_\_\_\_

### Plan

Draw a diagram or sketch out your ideas. Make a list of materials you may need.

\_\_\_\_\_ Approved  
\_\_\_\_\_  
\_\_\_\_\_



**Validation**

- My project is safe
- I can get the materials
- I have enough time to build, test and report the project
- My project will not harm organisms
- My project will not harm or bother other people

**Final Approval to Begin Project**

Notes from approver:

---

---

---

---

---

---

---

---

---

---

\_\_\_\_\_ Approved

**Create**

Follow your plan and make something.

---

---

---

---

---

---

---

---

\_\_\_\_\_ Approved

**Test**

Plan how you can test your idea and record data.

---

---

---

---

---

---

---

---

\_\_\_\_\_ Approved



## Improve

Discuss what can work better next time. How can you change your design?

---

---

---

---

Approved

### Listed below are some materials that may help you get started!

- Light bulbs
- Wires
- Batteries
- LEDs
- Switches
- Plugs
- Solar panels
- Paint
- Stencils
- Electrical Tape
- Paint Brushes
- Caulk and Sealers
- Drop Cloths
- Plants
- Seeds
- Substrates
- Fertilizer
- Soil tests
- Containers
- Tubing
- Pumps
- Strainer
- Washers
- Nails
- Hooks
- Magnets
- Rings and clips
- Stop watch
- Roof panels
- Gutters
- Acrylic sheets

*Most items are available at your local Home Depot.*

