The Engineering Design Process

1. Identify
2. Investigate
3. Imagine
4. Plan
5. Create
6. Test
7. Improve
8. Communicate
The Engineering Design Process

**Understand the engineering problem**
- Define the problem in your own words

**Gather details**
- Learn about what others have done
- Explore possible materials or processes you could use for your design
- Conduct science experiments to gather data

**Come up with different ways to solve the problem**
- Use your creativity to think of lots of ideas that could work
- Evaluate the pros and cons of each idea
- Pick one idea that is a good starting point

**Figure out the details of your design**
- Discuss how it will work
- Draw diagrams and list materials
- Decide how you will test and evaluate

**Build your design**
- Follow your plan
- Fix small problems
- Record any changes to your plan

**Evaluate how well your design works**
- Test multiple times
- Record your observations and findings
- Figure out which parts are working well and which parts are not

**Make changes to your design based on testing**
- Decide what to change
- Put your changes into a new plan
- Build your improved design and test again

**Share your solution with others**
- Explain strengths and weaknesses of your solution
- Share how you used the Engineering Design Process
- Ask people for feedback

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