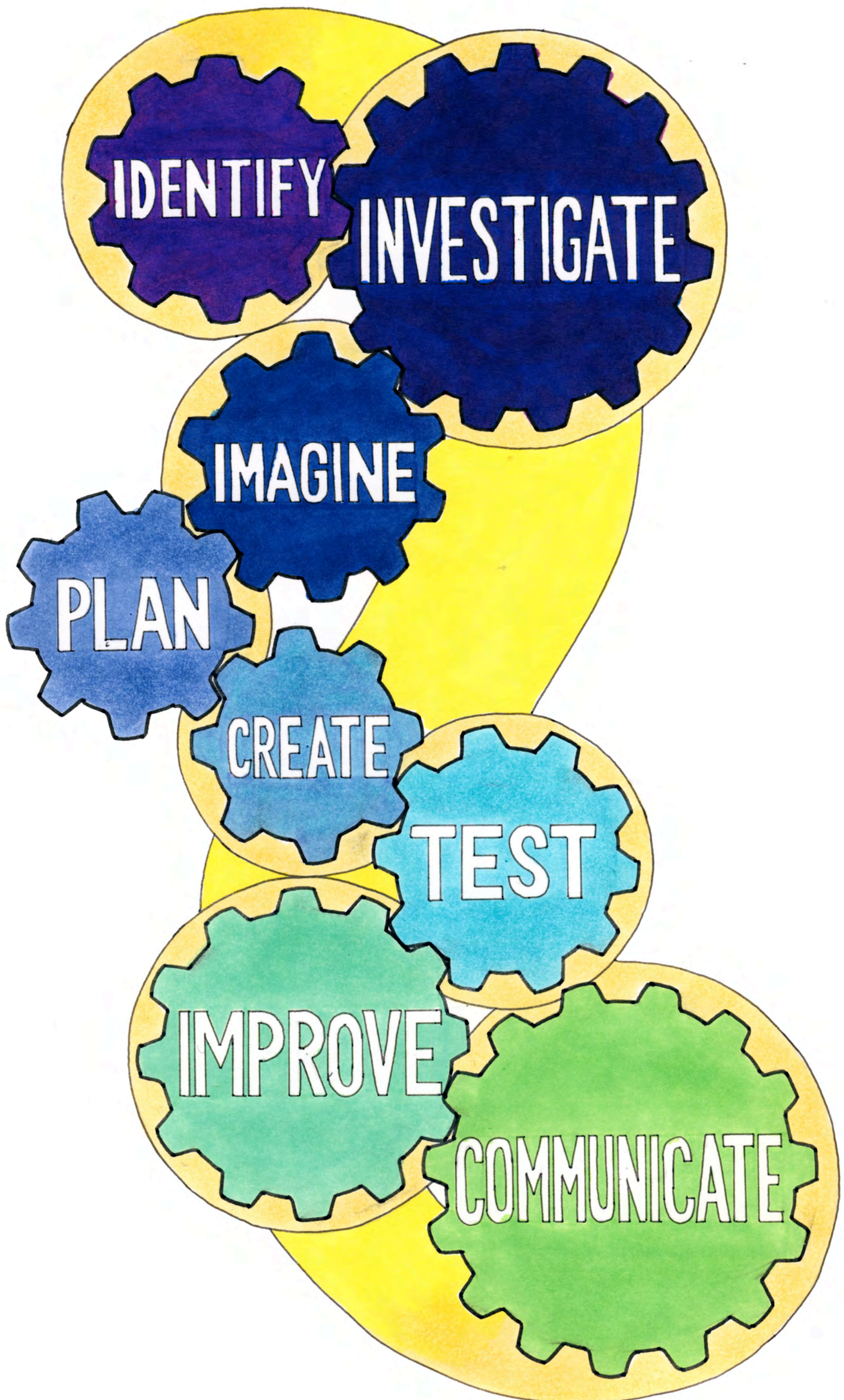


# The Engineering Design Process





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## 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