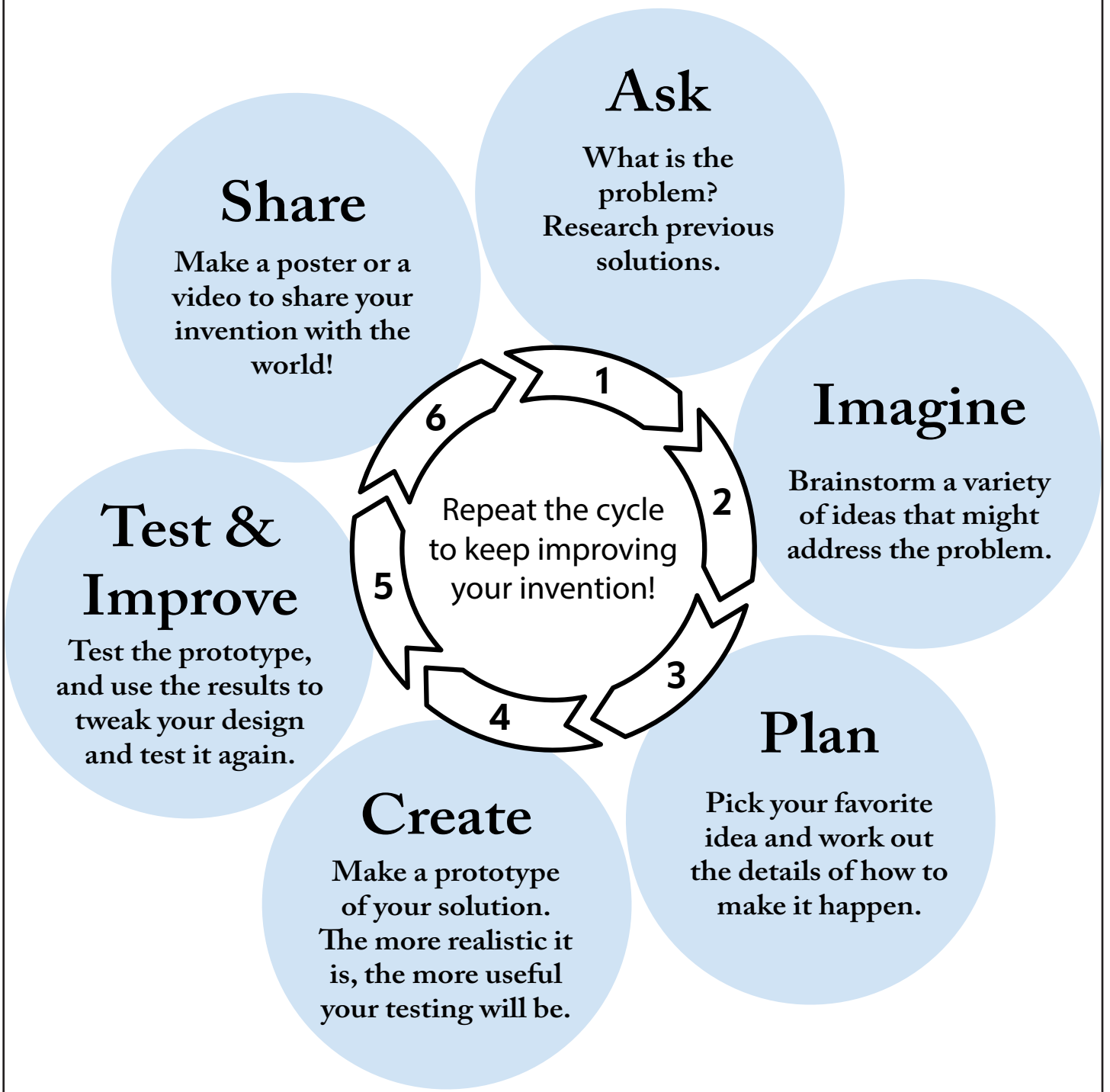
Cheatsheet for Solving Problems: Engineering Design Process



Learn how to use this from the book:
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Cheatsheet for Solving Problems: Strategies for Getting Unstuck

1. Go for a walk, take a shower, or sleep on it
2. Talk it out
3. Draw a diagram, make a model, organize information, look for patterns
4. Solve a different problem—a simpler one, the opposite, or work backwards
5. Go "bird by bird", break a complex problem into parts
6. Get the right tool for the job (Is there a method for this kind of problem?)
7. Jury-rig it or use "percussive maintenance" (Use the wrong tool for the job!)
8. Brute force it, guess and check, list all the wrong solutions
9. Start with first principles
10. Ask someone new or surprising for help
11. Question your assumptions, think outside the box
12. Identify the fundamental goal (Is something else the real problem?)
13. Embrace the imperfect
14. Wait and see
15. Live with it

Break out of your mental constraints!
Approach the problem from a new perspective.

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