The spiral diagram shown here represents one way to look at the design process. Design thinking doesn’t follow a straight linear path. The phases of the process often overlap, occurring simultaneously and circling back on themselves.


**DEFINING PROBLEMS**
Designers often begin defining the problem by mapping out any constraints or needs of the user and asking “how might we?” questions. Designers may also start to gather and analyze information through interviewing, observing and documenting.

**GETTING IDEAS**
There are many ways to get ideas and brainstorm, including making lists, creating mash-ups, and looking at similar design solutions.

**TIPS**
- Encourage wild ideas
- Defer judgment
- Write everything down
- Go for quantity

**PROTOTYPING + MAKING**
Prototypes allow designers to bring their ideas to life, share their designs with others, and see what works. Prototypes do not have to be miniature models of something, they can also be sketches, skits demonstrating the user experience, diagrams, lesson plans, etc.

**TIPS**
- Build to think
- Fail early to succeed sooner
- Don’t fall in love with your idea
- If a prototype fails are there elements you could still use?

**TESTING + EVALUATING**
Designers test their prototypes with users and interview them about what works and what doesn’t. They should be able to clearly explain the design challenge that inspired them and describe their design solution. After gathering feedback, they work on improving their prototype.

**WANT TO DIVE DEEPER?**
Visit our Educational Resource Center with over 400 design-based lesson plans written by K-12 educators like yourself. Find ten chair design lesson plans that fit in the subjects of Art, Language Arts, Social Studies, Technology and Mathematics.