

At the Chicago Architecture Foundation, we...

Use Chicago as a lens to cultivate energy and passion around the **power of design** to improve lives.

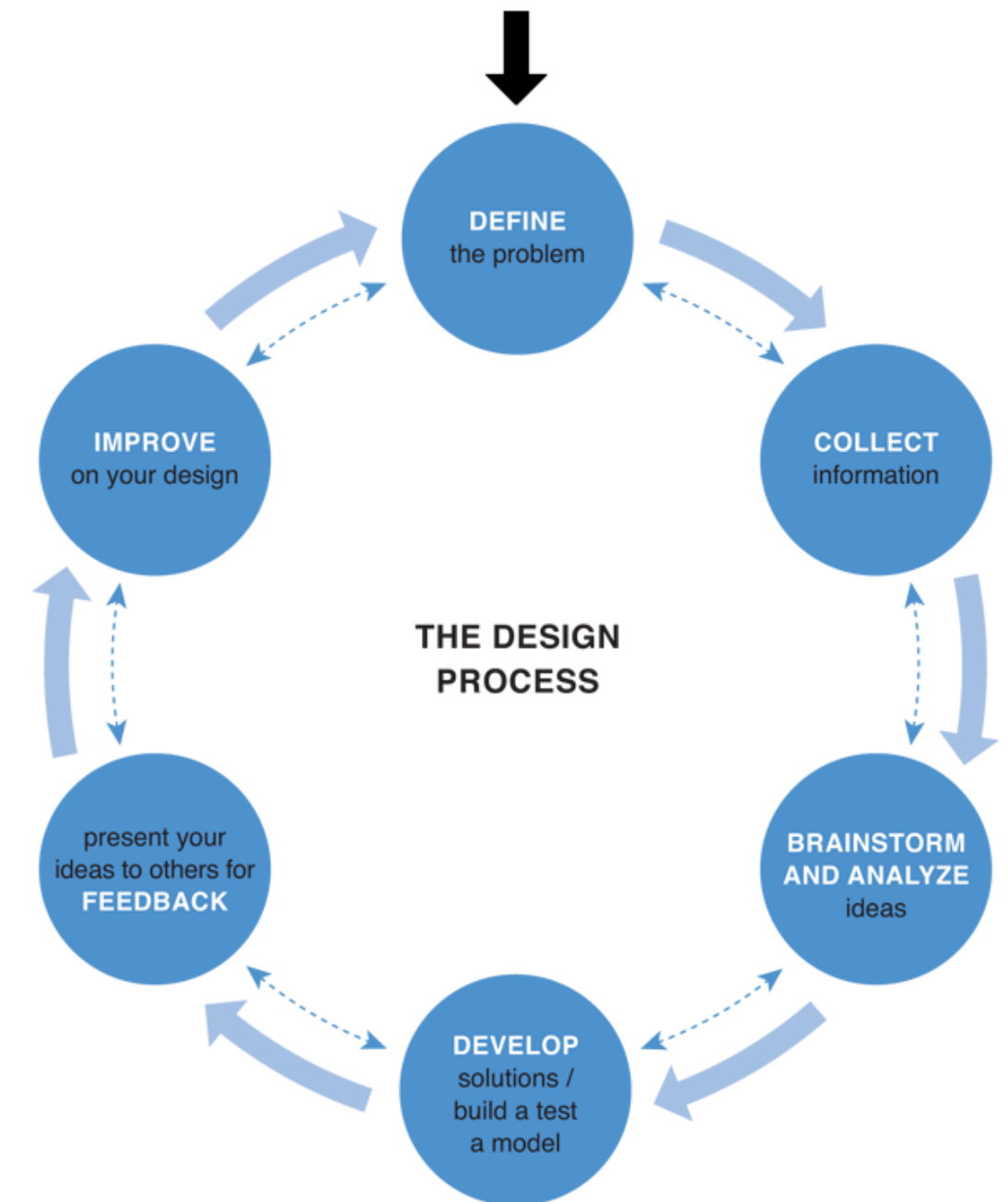
Foster awareness of and appreciation for the **design and culture of all communities**.

Broaden perceptions of architecture and good design **beyond aesthetics** to include usability, sustainability, and livability.

Inspire citizens to think about the **design issues in their communities** and serve as a place to discover the innovations that could solve them.

Apply the design process to develop **transferable, creative problem solving skills** in children and teens.

Challenge teens to **apply the design process to real-world problems** in their communities – thereby enabling them to improve the lives of their families and neighbors.



Connecting architecture + the design process to your core academic subjects and the Common Core Standards

SKILLS IN SOLVING ARCHITECTURAL AND ENGINEERING DESIGN CHALLENGES	CLASSROOM SUBJECT CONNECTIONS	COMMON CORE CONNECTIONS				
		Grade 1	Grade 3	Grade 5	Grade 8	High School
1 DEFINE the problem						
Working collaboratively	All subjects					
Comparing and contrasting	Social Studies, Visual Arts					
2 COLLECT information						
Observing the relationship betw scientific principles and the built environment	Science	1-ESS1-1	3-LS4-4,3-ESS2, 3-ESS3	5-PS2, 5-ESS2-1, 5-ESS3-1	MS-PS2,MS-PS3, MS-ESS2 MS-ESS3	HS-PS2, HS-PS3, HS-ESS2, HS-ESS3
Observing the relationship betw society/people and the built environment	Social Studies					
Researching	Language Arts, Science, Social Studies	Integration of Knowledge and Ideas	Integration of Knowledge and Ideas	Integration of Knowledge and Ideas	Integration of Knowledge and Ideas	Integration of Knowledge and Ideas
Collecting data	Mathematics	1.MD	3.MD	5.MD	8.EE, 8.F	N-Q
Photographing	Visual Arts					
Interviewing	English Language Arts	Speaking and Listening	Speaking and Listening	Speaking and Listening	Speaking and Listening	Speaking and Listening
Mapping	Social Studies					
Measuring and recording buildings	Mathematics	1.MD	3.MD	5.MD	8.G	N-Q
Sketching from real life or from memory	Visual Arts					
Reading a construction drawing	Mathematics	n/a	n/a	5.G	8.G	G-MG
Using an architectural scale to draw and convert measurements	Mathematics	n/a	n/a	5.MD	8.G	N-Q
3 BRAINSTORM ideas						
Diagramming a building through sketching or tracing	Visual Arts					
Reading	English Language Arts	Reading Info	Reading Info	Reading Info	Reading Info	Reading Info
Thinking creatively	Science (Engineering Design)	K-2-ETS1	3-5-ETS1	3-5-ETS1	MS-ETS1	HS-ETS1
Thinking critically	Science (Engineering Design)	K-2-ETS1	3-5-ETS1	3-5-ETS1	MS-ETS1	HS-ETS1
Viewing one object from various viewpoints	Mathematics	1.G	3.G	5.G	8.G	G-MG
4 DEVELOP a model / TEST solutions						
Solving a problem	Science (Engineering Design)	K-2-ETS1	3-5-ETS1	3-5-ETS1	MS-ETS1	HS-ETS1
Spatial thinking in 3 dimensions	Mathematics	1.G	3.G	5.G	8.G	G-GMD
Designing from imagination	Science (Engineering Design)	K-2-ETS1	3-5-ETS1	3-5-ETS1	MS-ETS1	HS-ETS1
Designing within constraints	Science (Engineering Design)	K-2-ETS1	3-5-ETS1	3-5-ETS1	MS-ETS1	HS-ETS1
Model making	Science (Engineering Design)	K-2-ETS1	3-5-ETS1	3-5-ETS1	MS-ETS1	HS-ETS1
Predicting the outcome of an experiment	Science	K-2-ETS1	3-5-ETS1	3-5-ETS1	MS-ETS1	HS-ETS1
Applying and testing architectural principles	Science	K-2-ETS1	3-5-ETS1	3-5-ETS1	MS-ETS1	HS-ETS1
Calculating	Mathematics	1.OA, 1.NBT	3.OA, 3.NBT	5.OA, 5.NBT	8.NS	N-Q
Drawing a building to scale	Mathematics	n/a	n/a	5.MD	8.G	N-Q, G-GMD
Making connections between plan view, elevation, sections, and photographs	Mathematics	n/a	3.G	5.G	8.G	G-MG
5 PRESENT your ideas for feedback and revisions						
Writing	English Language Arts	Writing	Writing	Writing	Writing	Writing
Describing a visual object	English Language Arts	Writing	Writing	Writing	Writing	Writing
Speaking to a group	English Language Arts	Speaking and Listening	Speaking and Listening	Speaking and Listening	Speaking and Listening	Speaking and Listening
Debating	English Language Arts	Speaking and Listening	Speaking and Listening	Speaking and Listening	Speaking and Listening	Speaking and Listening