

# The Engineering Design Process

**Scientists** investigate what is; they discover new knowledge by peering into the unknown...

**Engineers** create what has not been; they make things that have never existed before...

— Joseph Bordogna, National Science Foundation

## Steps in the Design Process

1. Define the need or problem.
2. Come up with ideas (brainstorming).
3. Select the most promising idea or design.
4. Communicate and plan the project.
5. Create, build/create and test the design.
6. Evaluate and revise the design.

Imagination is more important  
than knowledge.

— Albert Einstein

Every act of creation is first  
an act of destruction.

— Pablo Picasso

## Brainstorming Guidelines

- No negative comments allowed.
- Encourage wild ideas.
- All ideas are recorded.
- Stay focused on topic.
- One conversation at a time.
- Build on the ideas of others.

**Engineering is about...**  
bringing ideas to action.  
It's about creating a safer  
and healthier planet.

Apply your ingenuity and  
collaborate with other  
people to imagine and  
create things that have  
never existed before.

**Life takes engineering!**