



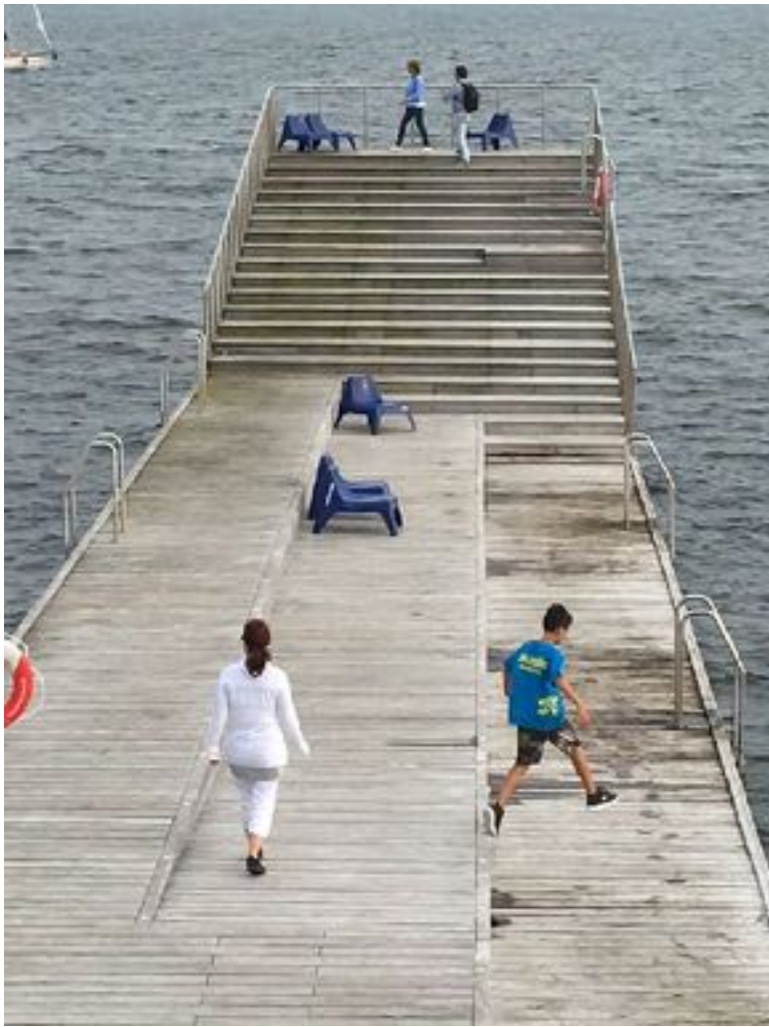
# ROBOTICS IN STEAM

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[kidsengineer.com](http://kidsengineer.com)



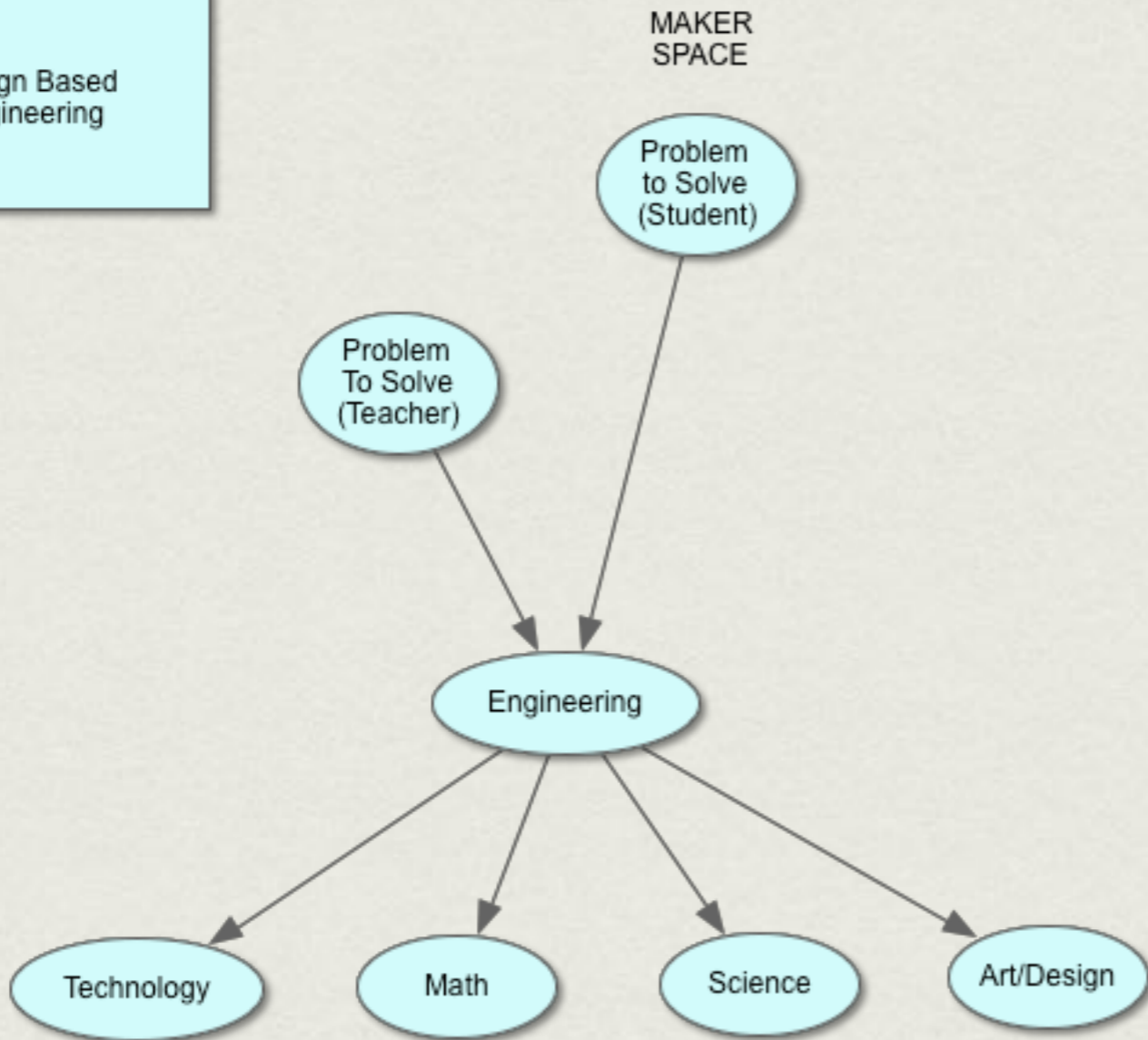


# K Example

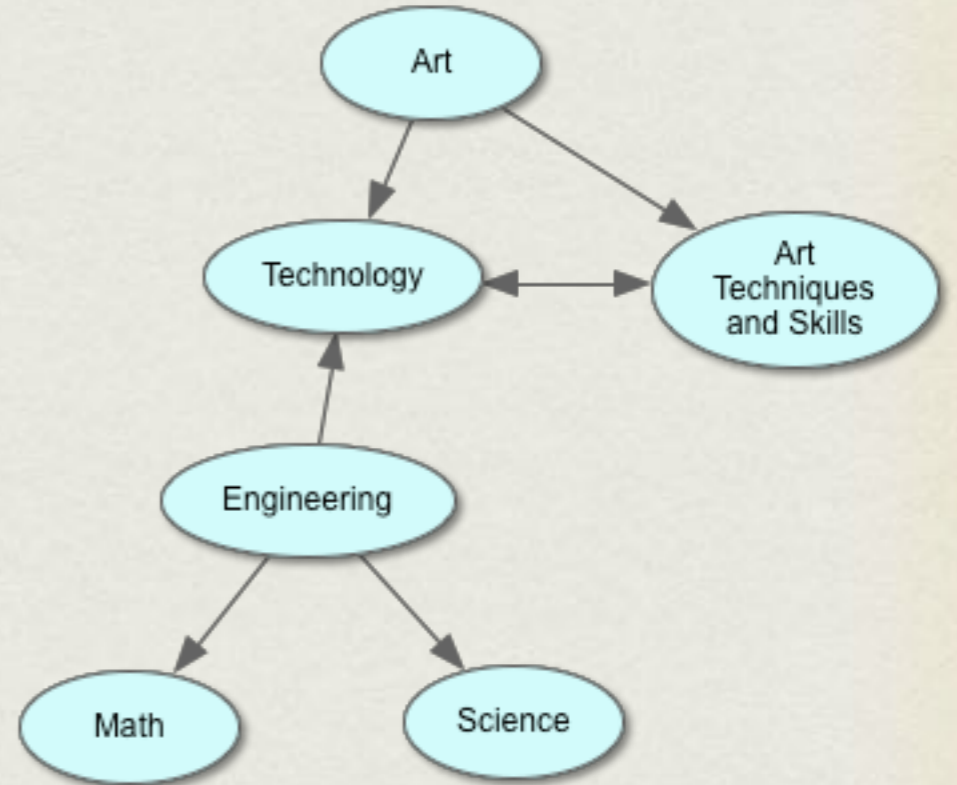


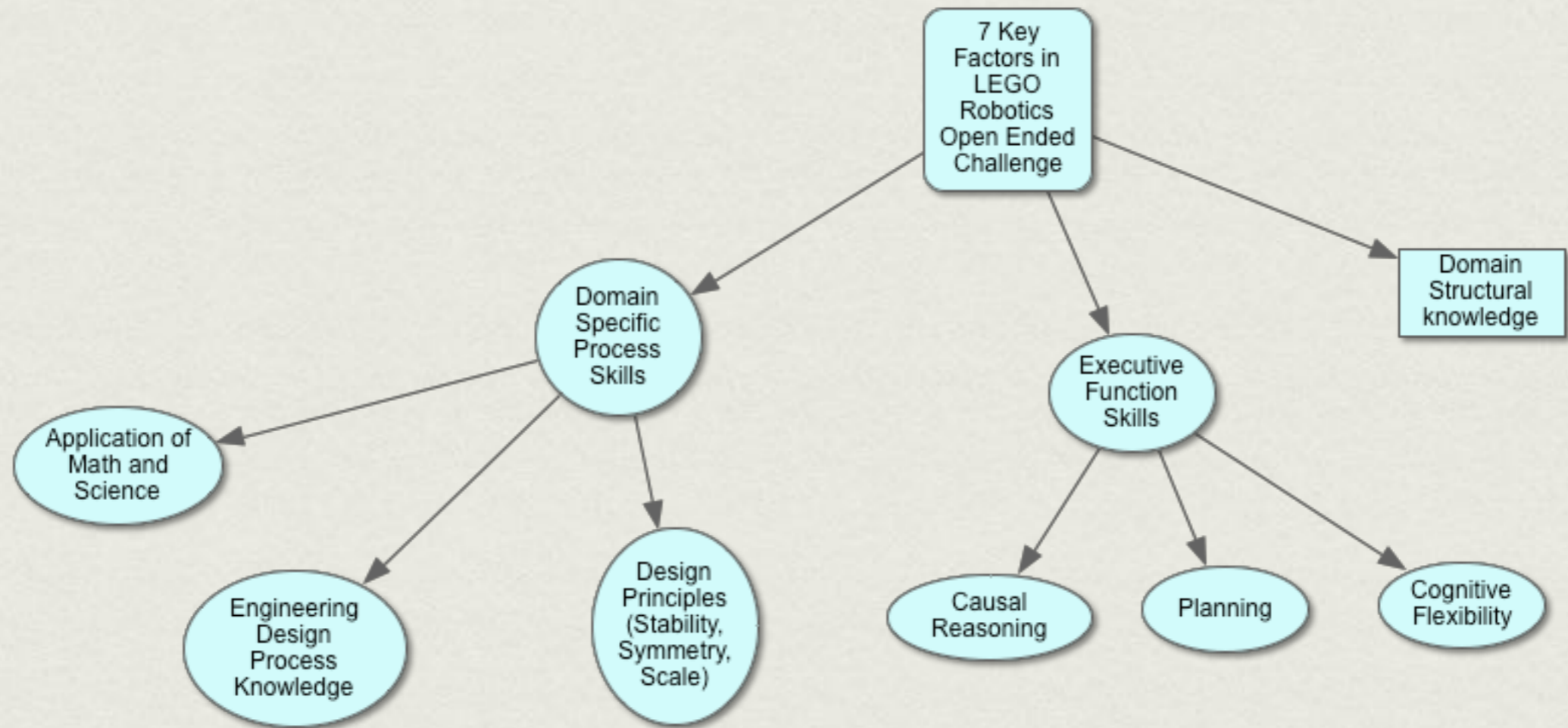
STEAM Models

Design Based Engineering

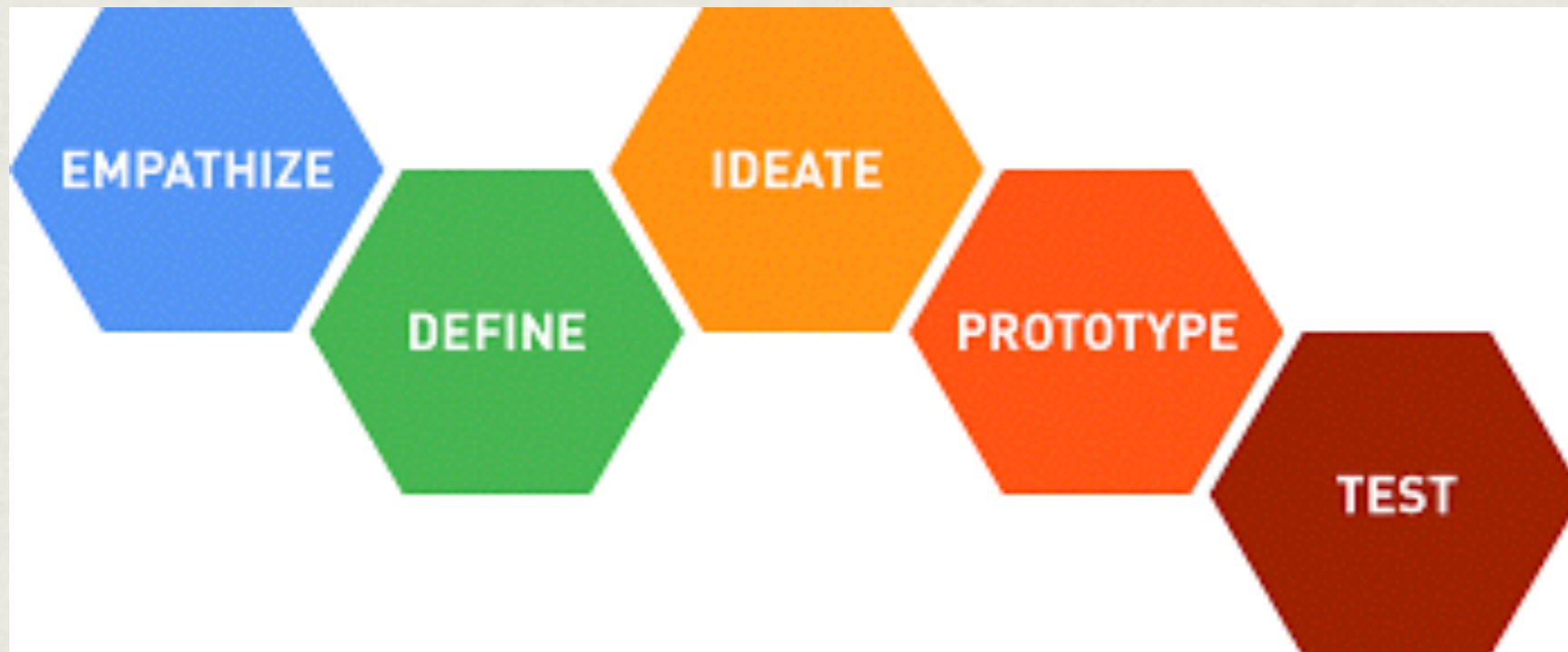


Tech Enhanced Art/Design





# IDEO DESIGN THINKING MODEL



[ideo.org](http://ideo.org)

# OBJECTIVES

- *Design, build, and test a cat entertainment device*
- Synthesize and relate scientific knowledge and design principles in a chain reaction machine



# DESIGN BRIEF



- <https://www.youtube.com/watch?v=5/1wvKf0ya14>
- Agnes, an elder living in New Jersey, would like to take her afternoon nap without interruption. However, her kitty Boots has a constant need to play and, in particular, loves ping pong balls. Can you design an attractive, sturdy, and functional device to entertain Boots?

# PLAN FOR TODAY

- Work in teams of 4 with 2 subgroups
- Explore - ping pong robots, automated cat toys
- Create and Test - design a prototype cat entertainment device using WeDo 2 in group of 2 first
- Pay attention to design - accessibility, aesthetics, design principles, usability
- Work with the other subgroup to improve the device or invent another
- Share and reflect

# RESOURCES

- ✿ *johnsheffernan99@gmail.com*
- ✿ *Kids Engineer - <http://www.kidsengineer.com/>*
- ✿ *LEGO Education Curriculum - <https://education.lego.com/en-us/lessons?pagesize=12>*
- ✿ *LEGO Engineering - <http://www.legoengineering.com>*
- ✿ *Elementary Engineering - Sustaining the Natural Engineering Instincts of Children - [amazon.com](http://amazon.com)*