**IGNITESTEM** 

## **THOUGHT** PIECES



## DESIGN THINKING

Design Thinking is a structured, team- based approach to innovation. The inspiration for design thinking originates from Thomas Edison. Edison is recognized not for inventing electricity, but recruiting a team of skilled individuals to develop a product that utilizes an existent technology to address a real world need. Design thinking is an embodiment of Edison's philosophy and actively teaches students to identify people's needs and leverage the numerous technological resources available to create innovative solutions to these needs. In other words, students are inculcated with a thought process of: inspiration, ideation, implementation.

Multiple schools have already implemented design thinking processes and have found great success. Through a combined effort led by IDEO and researchers at Stanford University,

an active global network is maintained of such schools ranging from South Korea, Brazil, to New York City. All of these schools have incorporated design thinking techniques or workshops into their day-to-day activities and have found their students to be more adept problem solvers and innovators.

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## TYPES OF PROJECTS

In more concrete terms, a sample design thinking process would look at a particular type of problem such as most effective way to improve word problem solving skills. Through design thinking, students would first learn to appreciate the problem and understand how it is applicable to the real world. Then utilizing the mathematical skills they have learned, develop potential approaches to the problem and test the different approaches. Through a process of iteration and modification students will eventually learn the best course of action and can then validate their results with the teacher. This is significantly different from simply being told a type of problem and the method to solve it. While the latter simply involves memorization and mindless practice, the first actually instills a thinking style to follow when faced with any problem that could be applicable in real life.

## RELEVANCE TO IGNITESTEM

The purpose of education is to prepare the leaders of tomorrow. One of the core competencies of any leader is to be able to identify the needs of the people around and to be able develop a multi-faceted approaches to tackle these issues. Such a skillset can only be developed by actively practicing such a thinking pattern on a day-to-day basis. At this conference, you will have the ability to experience design thinking strategies first hand and learn how to incorporate these teaching styles into daily class activities.

