

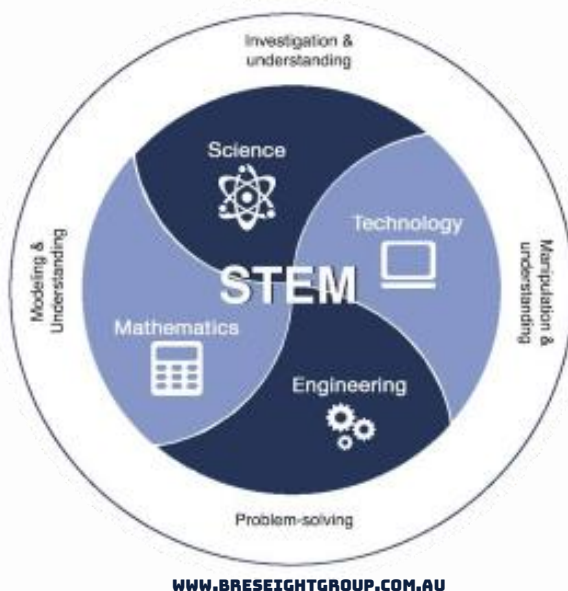
# 1-PAGER: STEM DESIGN SPRINT

## STEM – more than the sum of its parts

Science, Technology, Engineering and Maths all have specific knowledge and skill sets useful for solving problems. STEM is a way of doing. Meaningful learning through understanding, being active in authentic contexts, and having an impact in the world. It is about using knowledge to find positive solutions with easy jump on points, scope of growth and high expectations, and inclusive and sprawling possibilities and directions.

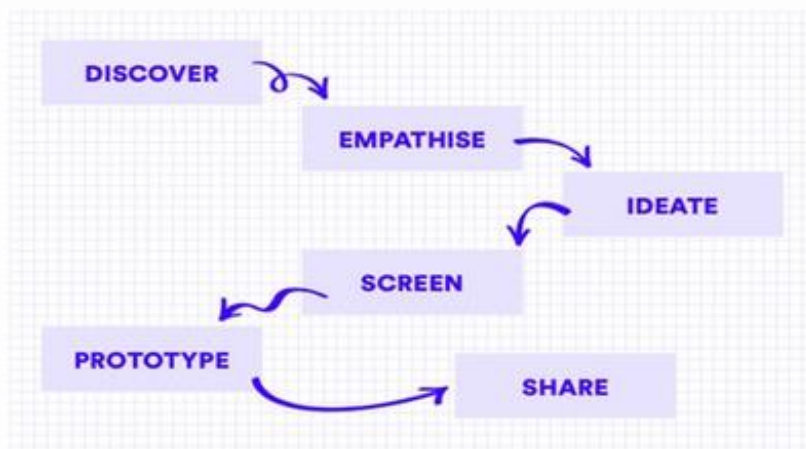
**“LOW FLOOR,  
HIGH CEILING,  
WIDE WALLS”**

**MITCH RESNICK,  
MIT MEDIA LAB**



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## Solutions by Design –Process



Design Sprints Framework to rapidly create user focused solutions. It is characterized by the iterative design process of understand the problem, empathy for stakeholders, and prototyping and sharing/testing phases. Solutions can be objects, processes, campaigns, APPs, games, or anything! Find out more: [www.dschool.Stanford.edu](http://www.dschool.Stanford.edu)

## Why STEM Design Sprint



Authentic,  
compelling  
problem /  
challenge



Multiple  
solutions



Design  
process



Applies  
trans -  
disciplinary  
content  
knowledge



Purposeful  
teamwork

## What we did: Discover

+ Background on STEM and Design sprints + Met STEM Problem experts, Researchers, and Infographics + Explored Planetarium + Reflected

## Defined Design Brief:

+ Design a moon base that protects humans from...  
+ And help them survive by providing...  
+ And make sure they are happy and thrive by giving them ...

## Ideate, Refine and Select

+ Solo and in groups, generate ideas, developed, and selected ideas against criteria

## Prototype

+ Used technology, and craft materials to build idea to help refine, and explain and share idea

## Share

+ using prototype to communicate and explain idea to support refining

## Topic Ideas for STEM Design Sprints

Plastic pollution in water, Disease spread, Social isolation, Mental health, Healthy eating, Inhabiting space, Sustainability, Extinction, Social inclusion

## Ideas for STEM Design Sprint in your classroom

1.Assessment of subjects and skills 2.Run STEM design sprint as intro/outro to a topic 3.Use Design sprint approach in lesson planning 4.Use design Sprint to enhance your classroom/school 5.Use design sprint to reach out and build relationships with community or industry