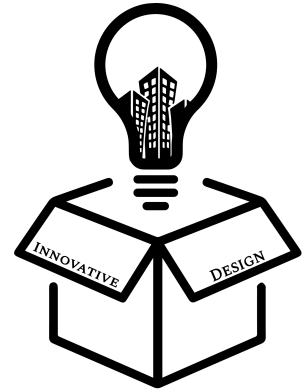


DESIGN REQUIREMENTS

According to the 2019 NAEP study, only 54% of four grade students experience hands-on inquiry activities. Providing access to quality STEAM learning would address this problem and enhance students' future opportunities.



Stakeholders- Who has a stake in the success of our product?

1. Teachers
2. Students/kids
3. Parents
4. Retailers
5. Administrators
6. Designers

Stakeholder: Teachers

- Must be based on grade level standards
- Relatable activities that they can make real connections to
- Needs to be a fast project, for example completed in less than 30 minutes or have clear stopping and starting points.
- Interesting to all demographics for age
- Can be cleaned up in less than 10 mins
- Hands on or requiring attention
- A collaborative activity to do with others
- A communicative activity

Stakeholder: Students

- 60% of kids say that this kit is Fun
- Should keep kids engaged for hours, >2
- 80% of kits should stay intact while being used properly
- 10% of kids think that the instructions are simple to follow

Stakeholder: Parents

- Does not include any highly toxic chemicals that will not cause harm if ingested.
- Allergy free, does not include common allergens, and includes labels about what ingredients are in the kit
- Educational value, will the child learn something new from it
- Kit costs less than 30 dollars
- Can't leave stains on clothes.
- Entertainment value, will it keep the child entertained
- Self-contained, does not require any outside materials
- Can be done independently or collaboratively.
- Can be cleaned up in less than 7 minutes
- Wide age range.
- Can be reusable or disposable.

Stakeholder: Retailers

- Certain dimensions have to be met so they can work on shelves were thinking 18x18x18
- were also thinking about weight so we can have a mass production of them in one spot and make them easier to load
- Price for production and shipment
- Displayability
- Easy to pitch to customers We

Stakeholder: Administrators

- Show the use for stem kits
- Material cost
- Time use
-

Stakeholder: Designers

- Higher quality material
- Cost of materials
- Easy to build in time crutch
- Can be easy to put in a box

Prioritized Design Requirements

1. No dangers to the student should be found in the kit
2. The kit should be hypoallergenic
3. Does not leave any permanent damage to clothes, skin, or surfaces
4. Must be based on grade level standards
5. 60% Of the kids should find the activity entertaining
6. 70% agree this kit has helped them better understand the topic
7. Less than \$30 per kit
8. Having the area cleaned in 10 minutes
9. 1 hour or more of fun and activities
10. Needs to be able to be completed in 2 thirty minute chunks
11. Maximum kit dimensions of 18 x 18 x 18
12. Maximum weight of 5 lbs

Other Considerations

1. Interestingly designed box