**Scorecard**

The functional requirements and quality attributes, with weights we have derived are below. The way we derived it is through discussion within the team to come up with a game that could equally entertain and educate the user. These are the top priority as we would like the game to cater to younger audience as depicted in our User personas.

To aid in replayability of the game, we have decided to allocate the rest of the weights to novelty and cost. This will allow us to dictate how the game will be implemented and increase the interaction with the user, while making the game accessible to most users.

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| **Functional Requirement** | **Quality Attribute (%)** | | | | | | **Total Weight (%)** |
| **Entertain User** | **Replayability**  *(30%)* | **Interaction with others**  *(20%)* | | **Duration of game**  *(25%)* | | **Visual Appeal**  *(25%)* | *25%* |
| New experience and learning when playing again with same or new people. | How much time and joy you will have by strategizing with others and build friendships. | | Length of time spend playing. If it is too long, does it have entertaining parts. | | First impression to catch our audience eyes and make them feel lively when playing. | Weightage Rationale:  We feel it is important to entertain for first impression, but ultimately must educate. |
| **Educate User** | **Use of knowledge in game**  *(33.3%)* | | **How concept is introduced**  *(33.33%)* | | **Difficulty of learning concept**  *(33.33%)* | | *40%* |
| Because our user characteristics shows over 30% would be interested to learn via a game. | | To introduce the concept in a way that ties in with the game and with what 48% of our audience value (awareness). | | Our game should introduce learning suitable for our target audience age and educational range. | | Weightage Rationale:  It ties in with those surveyed, 50% value raising awareness to educate & 30% learn via game. |
| **Novelty of game** | **Relatedness of theme**  (40%) | | **Physical Complexity**  (20%) | | **Uniqueness/Niche**  (40%) | | 15% |
| How much does the game relate to our audience majority interest of the physical landscape & geology. | | Whether there are few simple pieces or many small confusing components. Fewer pieces is logistically more helpful. | | How novel the game is compared with what out there. Games using similar concepts to what there would be lower. | | Weightage Rationale:  Useful for word of mouth promotion but limited in the educational perspective. |
| **Cost** | **Time to design**  (50%) | | **Prototype Making**  (20%) | | **Optimization Complexity**  (30%) | | 20% |
| The duration of time spent designing, drawing and sketching the game. | | To build a physical prototype, are there lots of component to build etc. | | Whether this game require a lot of mathematical testing to keep the game balanced for all players. | | Weightage Rationale:  Subjective: Should be doable and not too time consuming. |