

Things to consider when creating a problem statement...

1. It should be a solvable problem using technology/coding
2. Think small! Think local! Think of things that have affected you personally!
3. Be specific about target market, the issue, and how you could solve it.
4. Do not worry about the advanced information of exactly how you would solve it yet- start with an idea and go from there.
5. The project just has to involve coding so it can include: a game, app, website, database, etc. You have more options than just a game.

Format:

<http://www.ceptara.com/blog/how-to-write-problem-statement>

<http://www.rose-hulman.edu/class/csse/csse221/201410/Projects/Mini-project/Problem%20statement%20and%20proposed%20solution.htm>

<https://www.sciencebuddies.org/science-fair-projects/engineering-design-process/engineering-design-problem-statement#definingtheproblem>

Problem Statement Example (from last year's \$1,500 winner):

Who -This product is for the younger generation, specifically students in Elementary and Middle school.

What - Video games can teach children problem solving, creativity and brain development. Our game is 2D side scrolling game, the character is a narwhal, who lost his family in a hurricane, and is trying to get back home. The narwhal has to overcome obstacles like jellyfish, plastic bags and oil. Our game will teach about pollution and how we can overcome it. Throughout the game facts will be given to the player and at the end of each level a short quiz based on those facts will pop-up.

When - This all started when plastic was created.

Where - This issue happens in all ocean biomes, and it can be solved.













Why -Pollution effects many different types of wildlife and is very damaging to the ocean ecosystem.

Overall goal: Our goal is to make a 2D side scrolling platform game, that is educational, adventurous and entertaining for the user/players.

Example: <http://www.cs.cmu.edu/afs/cs/academic/class/15499c/www/ProblemStatement>

Last year's product summaries are on the following page...

NGT Top Twelve Finalist

Team	Product Summary	Targeted Customer
AnDrive 	A utility app that performs computer repair, software installation and file transfers from a mobile phone	Computer users and technicians
Demonsquad 	An educational, problem solving game that helps students overcome struggles with academic and social subjects by providing challenging questions and compassionate situations through real life simulations.	Elementary and Middle school students
Drunk Simulator 	Virtual reality simulator providing an intoxicated experience	Teenagers
Game Squids 	2D side scrolling game teaching ocean pollution prevention	Pre teens
LifeBand 	The all in one integrated fitness experience. Integratable fitness tracker that works with today's fitness equipment providing individual biometric data for the user.	People who regularly attend Gyms
Project Divinity 	Adventure Game app , "DarkReign"	Gamers 21-35
SaveNTeen 	A mobile app that allows teens to receive discounts for popular businesses based on the user's inputted preferences .	Teenagers (Ages 13-19)
Scanned 	Mobil app to administer event/club sign in and tracking of attendees.	HS club/event coordinators and participants
StemLink 	A mobile app to be one centralized repository to track, view and communicate stem events and programs	STEM students, parents, teachers, & mentors/volunteers
TutorPeer.com 	A tutoring platform providing students in need with academic assistance from their peers at anytime, anywhere, with an internet connection	HS School districts and Students
V.O.R. 	Virtual Reality operating room providing educational tutorials of realistic medical procedures	Medical students and teachers
VR Science 	Teaching Chemistry, Biology, and Physics through the Oculus Rift	Science students who are kinesthetic learners