



THEME INFORMATION 2023

CONSTRUCTION/DESTRUCTION

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CONSTRUCTION/DESTRUCTION

“ Every act of creation is first an act of destruction. ”

Pablo Picasso

Build a wall. Smash a wall.

Break through to the other side.

Have you ever played a game where you had to build something to complete, or help you complete, the goal of the game?

What about a game where you had to smash or destroy something, or maybe many things, to get to the final goal?

Many games involve construction and/or destruction.

And this is the theme of the STEM video game challenge in 2023.

Your challenge this year is to make a game that involves construction or destruction, or maybe both.

Construction **AND** destruction!

Eliminate your enemy's forts to advance your army.

Build anew from broken pieces.

Be the glacier, the storm, the volcano.

Have you ever built something just for the joy of knocking it down? A tower of blocks, a sandcastle? Or do you like taking things apart so you can build something new? Can you build a game that involves both – construction and destruction – for you to get to the final goal?

We'd love it if you can figure out a game that involves both!

What is construction?

Construction can be a thing that we build – a building, a structure, a framework.

But construction can also be the act of building something – raising, creating, making, forming, fabricating, assembling.

What would that mean for a game?

Perhaps you could make a game where the goal is to complete the building of something – a tower, a bridge, a world, an ecosystem, a living thing, an idea.

There are lots of games like this: Minecraft, Fortnite, Cities, Trove, Roblox, Rust, Scrabble and many more.

But you could also make a game where the idea isn't just to build something, but where the goal of the game is the building process itself.

For example, imagine a game where you have to build a factory that is the used to build something else. The thing the factory builds is important but getting the factory to work properly is even more important. Factorio, Foundry, and Satisfactory are examples of this type of game. A marble run is a great offline example.

What is destruction?

The simplest way to think of destruction is as the opposite of construction. Destruction is demolition, dismantling, wrecking, blasting, smashing, shattering.

And it shouldn't be too hard to think about how that might apply to a game. You've probably seen or played many games where the idea was to destroy something to reach the goal. Have you ever been Ten Pin Bowling!?

Inspiration for game development

It is often helpful to start with what you already have experience with. Think about what you like to construct and destruct. Do you like to build jumps for your mountain bike? Do you like making up your own songs on an instrument? Do you like jumping on sandcastles? Or throwing water balloons for the thrill of watching them explode!?

Think about games you enjoy playing both on and offline. Let them inspire your game development.

What can you construct in a game?

Here are some things that a game might need you to construct, so as to reach the final goal:

- The world of the game
- Some thing within the world of the game
- A path through the game world
- Obstacles to stop an enemy or opponent
- An object – a building, a tower, a bridge, a living cell, a machine
- A collection of objects – an ecosystem, a city, an ant colony, a sports team
- Ideas – words, sentences, music, songs

Games often involve one player against another or against many others, but perhaps you could think about a game where players have to cooperate in the construction.

What can you destroy?

Perhaps this question should be – what can't you destroy in a game?

If you design a game that includes destruction, you might ask what is it that I want to be able to destroy? Everything? Most things? Only one thing?

Like with construction, perhaps you can imagine a game where more than one player has to cooperate in the destruction in order to progress and reach the goal.

And what about a game where you try and make your opponent do the destruction? Perhaps you build something and then try to get your opponent to destroy it.

Jenga is a nice example of that. Can you imagine a way of bringing that sort of goal into a computer game?

Have fun, and remember, you can't make an omelette without breaking some eggs!