Global Mystery 3D Print

Teachers/Makerspace keepers/Librarians Frequently Asked Questions

Why do this project?

What's the duration? From Monday, January 14th to May 6th, participation can happen at anytime, requests will be filled every Monday night starting at 8pm CST. Mystery Cube design files can be made ahead of time, and so are requests to participate.

How do I make it work in my classroom?

What concepts are important to use to have a successful project? Teachers can combine cryptography- the study of clues and codes, along with any design curriculum. Teachers are encouraged to talk about universal design processes

Do my students "Have to" Print it out? No, but it's cooler that way. The creators envision students watching a Mystery Cube being printed and guessing where it's from, or being handed an already printed cube.

How do I protect the student's privacy? You will submit all STL files, the moderator will keep teacher's individual emails private.

Who is participating? Either teachers leading a classroom, Librarians associated with a school or home schools. Participants will be recruited globally.

Are the time frames flexible? Yes. It is designed for individualization. For example, it is fine for students to take several weeks to create a design. If students need more than a week to generate a guess, that's fine too. You don't have to open the "Answer Email" until your group/class/ team is ready.

How could a classroom use it?

How could Libraries use it?

Many students want to make a 3D object, but have "Printers Block" this creates some guidelines, and provides incentive to complete the project- you get a clue or game at the end!

It could also serve as an introduction or example of what students can build, once a group creates a clue, and "Global Mystery Cube" is given, and it could be open to the whole library to guess where it's from.

How could a Makerspace use it?

Global Mystery 3D Print Challenge

Student Frequently Asked Questions

Does it have to be a cube? No, it can be any shape, we just say "cube" because it is easier.

Can we do different colors? No, many of the other 3D printers can't do different colors, and the challenge is open to many different types of printers.

What size does it have to be? Must fit into a 7cm X 7cm X 7cm box.

What are the design constraints? You can only put numbers on the cube, no words, a maximum of 5 letters are allowed. Keep in mind participants in this challenge use many different languages and different 3D printers with different resolution levels.

What clues can I put on the cube? It needs to be a universal design, which means somebody could get your Mystery Cube who doesn't speak your native language. Clues or hints that may be obvious to you, may not be to someone from a different background or culture. Think strategically.

How much time do I have? Typically one week, although it may vary depending on your instructor's instructions.

How much detail do I have to give/ guess?: *The goal is to guess the right school*, so students have narrowed it down from city, state/region/providence, nation.

How do I submit it? Ask your teacher or the person who gave you this challenge.

This is great! I am going to give the Fibonacci sequence, and the missing number will be the key to the first latitude number…. Slow down there, Tiger! You want this to be easy enough that most students will guess it based of the clues and a little research in 2.5 hours. You want it hard enough to be a challenge, but not overwhelming. DO be creative!