Come on in!

Grab a kit and an index card. You have 5 minutes to develop a key for the model in the kit!

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Many of the protocols have been developed through collaboration with
The Center for Biomolecular Modeling, 3D Molecular Designs, and
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This Presentation

- Real activities done by real students in real classrooms
- How to make it work for you
- Hardware and Software
- Work Time

Why Do This Stuff?

- NGSS Alignment-
  - Developing and using models is considered a key practice
  - Over 35 MS and HS standards align with the activities shown today.
- Increase interest and competence in cutting edge technology
- Effective, engaging, and fun

The Cell Model (using Tinkercad)

- Open up the laptop and go to tinkercad.com
- Use the username 1234TinkerLP@gmail.com; password 1234LPTINKER (case sensitive)

- Search for “Plant and Animal Cell Construction Kit”. Click “Copy and Tinker”.

- Click on Design, then properties. Rename it to your initials, followed by type of cell you want to make.

- Make your cell. Delete unnecessary parts.

- Export as STL.

The VSEPR kit (using Jsmol)

- Follow the instructions for the VSEPR modeling kits.

- Ask questions!

Making a Drug (Model)

- Follow the protocol for making the drug.

- Then, look at the examples of posters.

Model a Protein

- We will be making two proteins, aquaporin and green fluorescent protein.

- This does require a full computer, not a chromebook.

Slicing

- Slicing requires a computer.
- Some printers have proprietary slicing software.