

**Summary of Q&A Log
POGIL Webinar: Using PhET in Your Online Laboratory
March 24, 2020**

We will have access to this ppt?

[Yuen-ying]: <https://tinyurl.com/2020-phet-for-remote-learning>

The link shared above will take you to a shared web folder with both today's slides, but also shared resources for using PhET sims.

I see three folders, a slideshow, and a document when clicking on the link. Is this correct?

[Yuen-ying]: Great - that's exactly what you should see - the folders are a work in progress, with more materials being added over the next days!

How long should/would this activity being demoed take for a high school student?

[Patricia]: I would image about 35 or 40 minutes. I used it in a 55 minute class with discussions. I am not sure how much time students will use doing the screen captures.

If students have never used PhET before, is there a good "introductory" one that is really easy to use for students to get used to the environment?

Answered live during webinar.

Do the simulations work on Chromebooks?

[Yuen-ying]: All of the HTML5 sims will work on anything with a web browser, including chromebooks, yes! :)

[Kathy]: The HTML5 simulations run very well on Chromebooks. Currently, the Flash sims will run on Chromebooks if Flash is enabled in the browser,

Is there a check list for physics as well?

Answered live during webinar.

Students have to have computer access to run the simulations? Any simulations accessible from phone?

[Yuen-ying]: All of the HTML sims can be used from any device that has a web browser, including smartphones and tablets!

Some sims may be more difficult to use for precision or quantitative tasks like data collection on a phone simply because the view is small (and we don't have as much control with our fingers... but I've definitely used sims with students for more qualitative and conceptual exercises where they were actively working on their phones to explore!

If you are using Zoom as your teaching browser, should you set up Zoom Breakout rooms and then come back together or give them more time to work outside of class time together?

[Yuen-ying]: Both are great options, depending on the complexity of the activity you've planned!

You could imagine using breakout rooms for addressing conceptual questions (either for a warmup or to discuss challenging ideas) and then coming back together in the larger zoom session to poll and see how the whole class did in their conversations.

You could also assign the sim as a link with questions outside of class, and then bring them together to discuss in zoom afterwards.

Something to think about: If you haven't been having them use these sims before, getting them to explore fully and really play around with all the features — having them working *together* can sometimes really get them talking, because they prompt each other to explore further. :)

Could you show us again how to access teacher resources and perhaps look at a couple for a given sim - for example other activities about Beer's Law?

Demonstrated live during webinar.

I'm wondering about Biology simulations

Answered live during webinar.

Does it show whether the sim runs on HTML5? Can we screen for that?

[Yuen-ying]: It sure does - there's an icon on every HTML5 sim on the PhET website, but also, you can specifically restrict the list to HTML sims only:
<https://phet.colorado.edu/en/simulations/category/html>

What does the embed code do that the link does not do?

[Yuen-ying]: One of the biggest differences with the two ways of including a sim is just how the students will perceive their interaction.

Embedding the sim within, say, a digital assignment, means it's right there above the questions, and it really feels like the students can go back and forth between the sim as they approach concepts and questions within the assignment.

Linking may allow you to start students playing around with or using the sim to help address multiple assignments or in a remote class session

In an online learning environment, are these best used at the start to guide inquiry or after some direction instruction and reading on a topic to reinforce? I am just wrapping my head around sequencing instruction online.

Answered live during the webinar.

This isn't a question but I LOVE the build-a-molecule PhET!

[Kathy]: See the link to the prototype in HTML5!

http://phet.colorado.edu/sims/html/build-a-molecule/latest/build-a-molecule_en.html

Participant comment

Not a question but for some physics phet I have embedded the phet in desmos so students could plot their data and change parameters etc to dive deeper

Participant comment

This isn't a question, but I've sometimes assigned PhETs for exploration before class and review after class - students seemed to appreciate them. I did not have time to train them on how to use it but most of them figured it out!

Participant comment

Thank you for 2 suggestions:

1. Be easy on yourself and have patience with yourself and your students while we figure this out!
2. You don't necessarily have to use the entire SIM but can just use some of it for a question or 2.

Participant comment

I teach high school chemistry and I've used the balancing equations at the start. The kids understood the balance but I've always done this in class walking around. I'll see how it goes tomorrow when I try it online. The kids like them.