

CK-12 Simulations and PLIX Interactives Webinar

PLIX TEACHING STRATEGIES

- Differentiate learning by using the PLIX challenge questions to address various depths of knowledge.
- Support struggling learners by having them access other modalities related to a PLIX concept through the "Learn More" pop-up.
- Have students explore a PLIX and then share their different experiences and what they learned with each other.
- Use "check for understanding" PLIX as a review of a concept, so students can see how well they understand a concept before an assessment.
- Have students screenshot a few different states for a graph or set of variables and explain what changed and how the change affected the graph or situation.
- Have students brainstorm applications of a particular concept, or design their own PLIX to address a concept.

SIM PLANNING STRATEGIES

- Access the SIMs browse page from the icon on the CK-12 homepage or the shortcut web address www.ck12.org/sims
- To find a particular SIM for your course or level on the SIMs Browse page simply scroll down, type keywords into the search bar, or filter the SIMs by concepts or NGSS standards.
- Download and print the SIM worksheet that is available under the "Worksheet" tab of each Physics SIM
- Use the many resources embedded in the sandbox - tutorial videos, concepts, and challenge questions - to differentiate instruction.
- Download the FREE CK-12 Simulations App to explore and experiment with using the SIMs in your class (in the first few weeks of school)!

CK-12 Simulations and PLIX Interactives Webinar

SIM TEACHING STRATEGIES

- Ask your students to download a particular SIM to their tablet devices using the free CK-12 Physics Simulations App as a homework assignment and never lose a learning moment in class!
- Use the opening question of a SIM as a "quick-write" prompt at the start of class.
- Project the interactive "sandbox" environment on a screen in class, hide the graphs and prompt students to sketch their predictions regarding what the graphs will look like on whiteboards. Then, drop the graphs down to reveal and discuss the actual results.
- Prompt students to answer the slider-based questions in pairs during class.
- Assign the slider-based questions for homework because they provide students immediate feedback, which is very helpful when learning independently.
- Prompt students to pick a real-world example that interests them and do some further research on it for homework. The next class period, they can share their findings with their peers.
- Prompt students to create and upload their own real-world example.
- Use the SIMs to dispel common science misconceptions.
- Use SIMs to teach math concepts - such as parametric equations, vector addition, sinusoid problems, and unit conversions.