

## Positive Physics, Chemistry, Physical Science, Biology, Environmental Science & Engineering

### Grade Levels

6-12

### Educational Setting

In School (This program is best implemented in situations where the same students meet for the full implementation.)

### Informational Webinar(s)

- Jan. 29, 5 p.m.  
[REGISTER HERE](#)
- Feb. 19, 5 p.m.  
[REGISTER HERE](#)

### [Recordings on Iowa STEM's Website](#)

### Award Provides

- Training sessions
- One year of teacher and student subscriptions to the platform
- \$100 stipend for attendance of required workshop
- On-going support

## 2025-26 STEM Scale-Up Program Summary

Positive Physics, Chemistry+ ([positivephysics.org](http://positivephysics.org)) is an engaging lesson and problem bank for Middle & High School Science. The site was built by teachers in diverse classrooms and designed to be accessible to students on any level from middle school to AP. Awardees receive:

- 5000+ Interactive questions & videos designed to replace a textbook.
- Immediate feedback & automatic grading.
- Randomization to prevent copying.
- Nurturing environment to build student confidence.
- Responsive customer service (contact [jack@positivephysics.org](mailto:jack@positivephysics.org) any time).
- [1 Minute Intro Video](#)

*"My chemistry, physics, and physical science students LOVE using positivephysics.org!"*

- Launa Buxton (East HS, Waterloo)

*"Positive Physics is one of the best online programs I've used in my many years of teaching. It is easy to use and tailor to my personal needs and preferences. Students are very engaged in the lessons and practice!"*

- Liz Moritz (Midland HS, Midland)

*"This resource has been an amazing addition to my classroom this year! The assignments allow students to discuss strategies instead of sharing answers because numbers are randomized so that no two students will have the same answer."*

- Anna Pauley (Atlantic High School, Atlantic)

*"The site is fantastic. It is great for new learning and for review. I had a student today that told me she felt really good after completing the lesson on velocity graphing from yesterday because she was struggling, and she now understands the concept. She said it feels good to go from struggling to understanding. Jack is also personally very responsive to any question and welcomes feedback."*

- Brad Horton (Kennedy High School, Cedar Rapids)

## Requirements to Implement the Program

- Educator(s) must participate in one, one hour workshop (Teacher will receive \$100 attendance stipend)
- Educator(s) must participate in the STEM Council Scale-Up Educator Survey.

## Additional Cost(s) to Awardee During Award Period

None

## Approximate Sustainability Cost(s) After Award Period

\$299/Teacher/Year  
(includes unlimited student subscriptions)

## Website

[positivephysics.org](http://positivephysics.org)

## Video

[youtube.com/embed/9bhD\\_EkuJsyl?autoplay=1](https://youtube.com/embed/9bhD_EkuJsyl?autoplay=1)

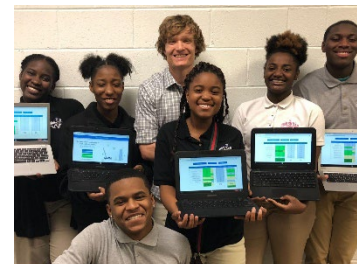
## Iowa Standards Alignment

Positive Physics and Chemistry is designed to cover all topics covered in the following courses:

- Physics (including AP)
- Chemistry (including AP)
- Biology (including AP)
- Environmental Science (including AP)
- Physical Science
- Engineering

In addition, each unit begins with an inquiry activity that is based on the NGSS/Iowa standards. Three inquiry activities with strong curricular ties are described below and full NGSS alignment can be found on the site.

**HS-PS2-1:** Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration. [See Unit 5 Inquiry]



**HS-PS2-2:** Use mathematical representations to support the claim that the total momentum of a system of objects is conserved when there is no net force on the system. [See Unit 14 Inquiry]

**HS-PS3:** Develop and use models to illustrate that energy at the macroscopic scale can be accounted for as a combination of energy associated with the motions of particles (objects) and energy associated with the relative position of particles (objects). [See Unit 13 Inquiry].

## Professional Development

### Duration:

One hour

### Date(s):

July/August

### Location:

Virtual via Zoom

positivephysics PREMIUM Jack Completion: 98% Accuracy: 98%

Balance the chemical reaction, then answer the questions that follow:

$$1 \text{ NaCl} + 1 \text{ KOH} \rightarrow 1 \text{ KCl} + 1 \text{ NaOH}$$

How many grams of NaOH will be produced if 16 grams of NaCl reacts with KOH?

16	grams NaCl	1	mol NaCl	1	mol NaOH		
58.4	grams NaCl	1	mol NaCl				

Check Answers

To Learn More or To Apply: [educate.iowa.gov/STEM/ScaleUp](http://educate.iowa.gov/STEM/ScaleUp)