



Chevron's Partnership with the Fab Foundation

Tate

The engineering design process is ...

Cambryn

...the way for engineers to solve problems.

Naveen

The first step is to define the problem

Cambryn

Brainstorm with the group or with friends.

Travis

After you've done all your research, you start putting it together.

Emma

Once you develop a couple ideas you want to choose your best one.

Angad

The best part though is making the model or the prototype.

Tate

Then you test it and evaluate it.

Travis

It might not all work at first. Like Thomas Edison – it took him how many times?

Arash

You like change it, go back.

Naveen

If it's good, then communicate results.

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Tate, Katie and Emma

And that's the engineering design process.

Holli Shelton, Science/Gateway to Technology Teacher, Fruitvale Junior High School

Do you think that your circuit is going to turn out perfect the first time?

Class

No.

Holli Shelton

In a Project Lead the Way classroom we can go through the design process and really teach concepts of how to create something and that really prepares them if they choose to become an engineer later on in life.

Travis

Today, I'm going to be working on a pickup truck for the 3-D printing.

Tate

We're going to extrude a hole and we're gonna...

Travis

...and we're going to, um, have an axle.

Emma

We're working on a circuit and we're adding gaps for the resistors.

Cambryn

The battery is point-two-five inches for the holes.

Holli Shelton

The students will have it fully ready for production but we don't have all the equipment necessary to make what they have designed.

Blair Blackwell, Manager, Education and Corporate Programs

Creativity, critical thinking and collaboration – what the Fab Foundation and what Fab Labs are all about.

In 2014 Chevron made a commitment to the Fab Foundation of \$10 million to establish Fab Labs across the United States in areas that we have operations.

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Sherry Lassiter, Director, Fab Foundation

A Fab Lab is the place where students and entrepreneurs come to imagine, to design and then to make almost anything that they want.

Blair Blackwell

This Fab Lab was established in partnership with California State University, Bakersfield, and it's the first of our planned Fab Labs.

Sherry Lassiter

California State University is joining a global network of over 400 Fab Labs in more than 50 countries.

Holli Shelton

My students are so excited to go to the Fab Lab to produce what they have created in the classroom.

Sherry Lassiter

The Bakersfield lab has a couple of laser cutters, a couple of 3-D printers, a small in-seam milling machine – it's a whole suite of tools that allows you to make just about anything.

Sherry Lassiter

Welcome to the Fab Lab!

Holli Shelton

He made this all by himself.

Holli Shelton

Seeing these projects come out that the students have worked so hard on, has just been the greatest experience.

Katie

It doesn't really work right now.

Holli Shelton

Not every design is coming out as anticipated and so when you have to rework the project, the students really see the design process in action.

Student

It works!

Travis

Yesterday, we're like, "Okay, let's make a truck." Today, we have the truck in our hand.

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Holli Shelton

Guys, this is awesome!

Leslie Roberts, Principal, Fruitvale Junior High School

Without Chevron's support it would be virtually impossible for us to offer this kind of technological and engineering program elective at our school.

Holli Shelton

And now that Chevron has funded the Fab Lab, public and students alike can really see engineering in action.

Leslie Roberts

Students are going to be able to really extend their knowledge and their understanding of what an engineering career would be like.

Blaire Blackwell

By pulling in so many partners from universities to K-12 education systems, we're helping to build a resource that will last well into the future.

Cambryn

It's so cool making things and having them come to life.

Tate

I could totally imagine myself working, doing this every day.

Mia

You're doing things for yourself and you're kind of helping others.

Travis

If it was this much fun every day I would just love it.

Kids (all together)

Fab Lab!

Chevron has invested more than \$100 million in education over the last three years in the U.S. and has pledged an additional \$30 million through 2015 to support STEM education.

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