

***Thank you to all of our students who helped with this event!***

**CO2 Rocks!**

Jose Leal  
Chemical Engineering

Bridget Kennedy  
Chemistry

**Lets Make Tracks**

Aaron Clemons  
Civil Engineering

Breanna Stout  
Biological Systems  
Engineering

Lewis Flores  
Architectural Engineering

**Squeaky Wheel**

Matt Nguyen  
Computer Engineering

Kimya Cartledge  
Mechanical Engineering

Sam Marin  
Industrial Engineering

**Washing Air**

Carlos Rodriguez  
Architectural Engineering

Cynthia Hampton  
Biological Systems  
Engineering

**Wind Energy**

Gabe Dinkel  
Mechanical Engineering

Sarah Kubler  
Computer Engineering

Weston Arbogast  
Architectural Engineering

**Logistics & Planning**

**Chelsea Renda – Mechanical Engineering**

And also thank you to Melanie Miller, and all the Dodge City High School teachers who helped us plan this event!!

# **Green Tracks: The Cleaner Road Ahead**



**Monday, February 23 &  
Tuesday, February 24, 2009**

Sponsored by



# Schedule for the Day!

<b>8:00 – 8:20 am Opening Session (Monday – Auditorium) (Tuesday – Cafeteria)</b>		
<b>8:30 – 9:20 am Hands-On Lab #1</b>		
Group 1	Lets Make Tracks	H235
Group 2	Wind Energy	H244
Group 3	CO2 Rocks!	T235
Group 4	Squeaky Wheel	T244
Group 5	Washing Air	T242
<b>9:30 – 10:20 am Hands-On Lab #2</b>		
Group 1	Wind Energy	H244
Group 2	CO2 Rocks!	T235
Group 3	Squeaky Wheel	T244
Group 4	Washing Air	T242
Group 5	Lets Make Tracks	H235
<b>10:30 – 11:20 am Hands-On Lab #3</b>		
Group 1	CO2 Rocks!	T235
Group 2	Squeaky Wheel	T244
Group 3	Washing Air	T242
Group 4	Lets Make Tracks	H235
Group 5	Wind Energy	H244
<b>11:30 – 11:50 am Lunch in Lab #3</b>		
<b>Noon – 12:50 pm Hands-On Lab #4</b>		
Group 1	Squeaky Wheel	T244
Group 2	Washing Air	T242
Group 3	Lets Make Tracks	H235
Group 4	Wind Energy	H244
Group 5	CO2 Rocks!	T235
<b>1:00 – 1:50 pm Hands-On Lab #5</b>		
Group 1	Washing Air	T242
Group 2	Lets Make Tracks	H235
Group 3	Wind Energy	H244
Group 4	CO2 Rocks!	T235
Group 5	Squeaky Wheel	T244
<b>2:00 – 2:56 pm Surveys &amp; Closing Session in Auditorium</b>		

## What are we doing?

### CO<sup>2</sup> Rocks!

We all know that Carbon Dioxide can be harmful to the environment. But did you know that scientists and engineers are currently exploring ways we can turn CO<sub>2</sub> into useable resources?? In this activity you will find out what they are doing!

### Let's Make Tracks

One of the challenges BNSF faces is building new bridges without changing their current route. Come to this activity and play the role of civil and architectural engineers! We need you to design a new bridge!!

### The Squeaky Wheel Gets the Grease

How fuel efficient are trains? What does BNSF do to help make their trains more fuel efficient? Come see what engineers and physics have in common and explore the concepts of friction and drag.

### Washing Air

How do engineers clean the air? The EPA regulates how much emissions are allowed to go into the atmosphere. Come learn how engineers have designed filters to clean the air coming out of the engines BNSF runs.

### Wind Energy

We all know the wind is powerful but do you know how a wind turbine works? BNSF powers their headquarters in Topeka KS with wind energy. In this activity you will learn how a turbine works and make your own model!

## Other K-State Events

### Engineering and Science Summer Institute (ESSI)

**June 1-5, 2009**

The purpose of the annual Engineering and Science Summer Institute (ESSI) is to create an opportunity for high school students to learn about engineering, as well as physics, chemistry, biology, and math. Go to <http://www.engg.ksu.edu/Engineering.Events.2008/engineering.and.science.html> for more information.

### EXCITE! Summer Workshop

**June 22-26, 2009**

Girls graduating from the 8<sup>th</sup> and 9<sup>th</sup> grades are invited to attend the 7<sup>th</sup> annual EXCITE! summer workshop! Join us for an awesome time this summer exploring science, engineering, technology, and math in new, fun, and exciting ways!! You won't be disappointed!

Go to [http://www.k-state.edu/excite/upcoming\\_events.htm](http://www.k-state.edu/excite/upcoming_events.htm) for more info!