

FEATURES



Engineers are undertaking all kinds of innovative projects to improve the quality of life (pages 12-35).

10-MINUTE ACTIVITY

After students have each read one article, have them discuss it within a small group:

1. Summarize the key points in two or three sentences.
2. Explain why this work is needed today and the kinds of engineering skills it takes.

ONLINE EXTENSION

Find an online eGFI article or video that updates or extends the information in the feature.

eGFI CARDS

Our colorful cards include their own activity suggestions. Here are a few more:

10-20 MINUTE ACTIVITIES

Distribute multiple packs of the cards to the class, with each card shared by a group of 2-3 students:

1. Discuss what the card tells you about this discipline. What are its key aspects?
2. Debate the “Think About It” question. How many different answers can you come up with?
3. Design an advertising campaign to convince the class your discipline is the best! List three reasons why and develop a catchy slogan.
4. Take turns holding up your cards and having teammates describe the key aspects and inventions – did they identify the important points?
5. Pair up with another group that could collaborate well with your discipline. What kinds of projects could you work on together?



ONLINE EXTENSION

Explore the online cards on the eGFI homepage (www.egfi-k12.org). What more did you learn about each field?

The eGFI

TEACHERS' GUIDE

Fun activities for your class

ENGINEERING IS

Technical ingenuity is everywhere in our daily lives (pages 2-7).

10-MINUTE ACTIVITY

After students read this section, ask if they were aware of all the things that engineers do. What surprised them the most?

1. Based on this introduction, what else might engineers create? Have students list five additional items.



2. How have these items changed or improved over time? Give several examples.
3. How would they improve each item? What would they change or add? Encourage “crazy” ideas and tell them that there are no “wrong” answers.

TEACHERS: If you've used the eGFI materials to develop successful classroom activities, please share them with us and other teachers via email at: egfi-teachers@asee.org.

PICK A MAJOR

No matter what your interest, engineering has a field for you (pages 8-11).

10-MINUTE ACTIVITY

Have students select the field that most interests them:

1. Design a poster for this discipline that highlights its
 - a) main focus and required skills
 - b) current and potential future inventions
 - c) appeal
2. Discuss three high school courses that would prepare you for this field. What role would creativity play?

ONLINE EXTENSION

1. Explore the cards on the eGFI homepage (www.egfi-k12.org) to learn more about how engineers in each discipline make a difference.
2. Explore our "Getting In" and "Good Advice" sections. What's the most helpful advice? The most surprising?



TRAILBLAZERS

These creative engineers are changing our world (pages 36-39).



10-MINUTE ACTIVITY

After students read the Trailblazers section, have them select the innovator whose work most appeals to them:

1. What else do you want to know? List five questions about his or her discipline, study, influences, and interests.
2. You're a TV broadcaster doing a short profile of this innovator. Capture the highlights in a compelling 3-minute presentation.

ONLINE EXTENSION

Explore the "Trailblazers" section of the eGFI website to find other innovators. Do they all share common traits?

www.egfi-k12.org

STUDENT VOICES

Engineering appeals to young people for many different reasons (pages 40-49).

10-MINUTE ACTIVITY:

- After students read this section, have them select the student they consider to be most like them:
1. What inspired this student to take up engineering? What intrigues you about his or her choice?
 2. It's 15 years later, and you have followed a similar course of study as this student. What discoveries or contributions to society have you made?

ONLINE EXTENSION

Explore the student profiles and videos on the "Meet a Student" section of our site (www.egfi-k12.org/engineer-your-path). What do you have in common with these students? What surprised you about them?

