

The 21st Century COACH



21st CENTURY SKILLS IN 21-MINUTE LESSONS



 **SADDLEBACK**
EDUCATIONAL PUBLISHING

**Improving Creativity, Critical Thinking,
Communication, and Collaboration**



Thinking Like an Innovator

INTRODUCE THINK ABOUT IT *What do you think creative people have in common?*

TEACH LISTEN UP! **Innovators** are very **inquisitive** people. They always look for new and interesting ways of doing things. Here are some things creative people do:

- They **associate**.
- They ask questions, such as “What if?”, “Why?”, and “Why not?”
- They **experiment** with new ideas.
- They carefully **observe** the world around them, especially the way others behave.

The important thing to remember about innovators is that they think creatively and always try to look at a problem or idea in a new way.

LET’S EXPLORE Creatively respond to two pieces of wordless music.

- Play a piece of classical music for the class. Have students write words or draw pictures that come to mind when they hear it. Do the same for a piece of wordless techno music.
- Ask students to share their responses with the class. Then, create two columns on the board named *Taste* and *Smell*. Ask what they think the given music selections would taste like and smell like. Hold a discussion about how thinking like an innovator means looking at ideas in new ways like this.

TIME FOR Q & A Most people agree that a great innovator named Timothy Berners-Lee invented the Internet as we know it today around 1989.

- ▶ **How did Berners-Lee’s creative thinking change the world?**
People are now instantly connected, all across the globe.
- ▶ **What might life be like today without the Internet?**
We would not have e-mail and other fast and easy ways to communicate.

REFLECT *How are you a creative person?*

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THINKING LIKE AN INNOVATOR

LESSON OBJECTIVE

Identify and apply ways to think creatively and innovatively.

TERMS TO KNOW

associate: to make connections between questions, problems, or ideas

experiment: to try out or test new ideas

innovators: people who think creatively to come up with new ideas

inquisitive: curious

observe: to look at carefully or study

GOES WELL WITH LESSONS:
1, 62, 73

21st Century Activities ... Each done in under 21 minutes

PRACTICE

Free Association

Students learn to think creatively through free-association writing.

- Assign small groups a broad topic, such as money, television, learning, recycling, and so on.
- Individuals write for 8 minutes on whatever comes to mind in relation to the topic. They should not think too much about what they write. There are no wrong answers.
- Write the topics on the board, and call on individuals to offer some examples of their associations. Highlight very creative/interesting responses in discussion.

- CLASS WORK
- HOMEWORK
- EXTRA CREDIT
- PROJECT

APPLY

Let’s Get Creative!

Individuals or partners complete **Activity Sheet 2**.

- Read the information about Carver and creative thinking.
- Then, in *Experiment*, think creatively like Carver. Choose a common item from the list and create a list of possible uses for that item.
- For *Create*, make a poster on **poster board** or using a **computer** to advertise one of the new uses.

- CLASS WORK
- HOMEWORK
- EXTRA CREDIT
- PROJECT

EXTEND

Connect to Business Literacy

The technology we use today was created by great innovators. These inventions have made a *lot* of money for their inventors or the businesses they work for.

Think of a piece of technology you use often, such as a cell phone, DVD, mp3 player, TV, and so on. With a partner, research the history of the technology. Create a presentation about its inventor(s), how the invention changed the world or made life easier, and how the inventor(s) thought of and developed the idea. Include visual aids—either posters or an electronic slideshow.

- CLASS WORK
- HOMEWORK
- EXTRA CREDIT
- PROJECT

Let's Get Creative!

INVESTIGATE Read and think carefully about the information below.

George Washington Carver was a scientist in the late 1800s and early 1900s. He was a great innovator. Carver thought creatively about plants. In fact, he invented about 300 new uses for peanut plants! Carver used peanuts to invent

medicines, lotion, and soap. He also invented paper, ink, glue, and fuel. And guess who invented peanut butter. That's right—Carver did! Without Carver's creativity, we wouldn't have peanut butter and jelly sandwiches today!

EXPERIMENT Review the list of items below. Choose one item.

Make a list of all the ways the item can be used. Be sure to experiment with ideas like Carver did! For example, an umbrella is usually used to block rain, sun, or wind. However, it could be used as a shield in a snowball fight. When closed, it could also be used as a walking stick.

- spoon _____
- book _____
- string _____
- blanket _____
- chair _____
- cardboard box _____
- tennis ball _____
- cell phone _____



CREATE Look at the list of uses that you created for the item you chose above. Choose one of your funniest or most interesting ideas. Make a poster to advertise the item and the new use for it. Include one or more images and text. Create the poster on poster board or by using a computer program.

Analyzing Cause and Effect

INTRODUCE THINK ABOUT IT *Have you ever wondered why something happened or what the results might be? Did you know that analyzing cause and effect can help?*

TEACH LISTEN UP! When you figure out why something happens and what the results are, you **analyze cause** and **effect**. This kind of analysis is very useful. For example, if you know what causes a problem, you may be able to remove the causes of the problem in order to solve it. And if you know what will probably happen as a result of taking certain actions, you can plan ahead. Follow these guidelines to analyze cause and effect:

- **Separate Causes from Effects** Don't confuse *what* happened with *why* it happened.
- **Find Causes** Ask: Why does this happen? Don't stop with just one cause. There may be more than one, and your first idea may not be your best.
- **Find Effects** Ask: What happens as a result? Try to think of all results.
- **Use Causes to Solve Problems** If you remove causes of a problem, you may solve it.

LET'S EXPLORE As a class, use the guidelines to analyze causes and effects of studying.

- On the board, draw a cause-and-effect chart like the one on Activity Sheet 15.
- Ask: *Why might a student study for a test?* Brainstorm causes such as wanting to get a good grade, feel a sense of accomplishment, and learn more. List them on the chart.
- Ask: *What might happen as a result of studying?* List possible effects on the chart.

TIME FOR Q & A Help students find practical applications for analyzing cause and effect.

- ▶ **How might knowing the causes of something, such as studying, help us in everyday life?**
It might help us to solve problems. If we know the causes of a problem, we can solve it by removing the causes.
- ▶ **How might knowing the effects of something be useful?**
We might make better decisions. For example, we might study more if we think through the positive results of studying.

REFLECT *What are some other everyday problems for which you might analyze causes and effects?*



ANALYZING CAUSE AND EFFECT

LESSON OBJECTIVES

Analyze causes and effects to help solve problems.

TERMS TO KNOW

analyze: to divide something into parts to see how they fit together

cause: a reason why something happens

effect: a result or outcome

GOES WELL WITH LESSONS:

23, 51, 95

21st Century Activities ... Each done in under **21** minutes

PRACTICE

Separate Causes from Effects

Students separate the causes of losing a sports event from the effects.

- In random order on a **sheet of paper**, list causes and effects of losing.
- Causes include: not practicing enough, making mistakes, feeling overconfident.
- Effects include: not making the playoffs, feeling disappointed, losing fan support.
- Read aloud each listed item.

Students raise their left hand to signal a *Cause* and their right hand to signal an *Effect*.

- CLASS WORK HOMEWORK
 EXTRA CREDIT PROJECT

APPLY

Chart Causes and Effects

Groups of 3 to 4 complete **Activity Sheet 15**.

- Read aloud the directions.
- Help groups complete charts and their **Journals (p. C3)** as needed.
- Groups present causes and solutions.

Possible Answers **ANALYZE:**

Causes—too much homework, too many school activities, too many family responsibilities **Effects**—feel tired, earn lower grades, get sick

SYNTHESIZE Solutions—Solutions will vary but must address causes.

- CLASS WORK HOMEWORK
 EXTRA CREDIT PROJECT

EXTEND

Connect to Health Literacy

Health information can save lives. When people know the effects of a bad health habit, they sometimes choose to break the habit.

In pairs, make a poster informing other students about a bad health habit, such as eating junk food or not exercising. List the harmful effects of the habit. Do research to make sure you give correct information. Your poster should capture teens' attention and make them want to change.

- CLASS WORK HOMEWORK
 EXTRA CREDIT PROJECT

Chart Causes and Effects

INVESTIGATE Many students have a problem. They don't get enough sleep. What are some causes of this problem? What are some effects?

- A **cause** is a reason why. To find causes of the problem, ask: *Why don't students get enough sleep?*
- An **effect** is a result. To find effects of the problem, ask: *What happens as a result of not getting enough sleep?*
- A **cause-and-effect chart** can help you analyze cause and effect.

ANALYZE Make your own cause-and-effect chart. Fill in the boxes to analyze causes and effects. Add boxes on another sheet of paper if you need to.

Cause 1: _____ _____ _____	→	Problem: <i>Many students do not get enough sleep.</i> _____ _____ _____ _____ _____ _____ _____ _____ _____	→	Effect 1: _____ _____ _____
Cause 2: _____ _____ _____	→		→	Effect 2: _____ _____ _____
Cause 3: _____ _____ _____	→		→	Effect 3: _____ _____ _____

SYNTHESIZE Use your chart to think of solutions.

In your **Journal** (p. 00), list each cause of not getting enough sleep. Use the causes you listed on the chart. Then write two solutions that might remove each cause.

Example: Cause 1: *Starting homework too late at night. Possible*

Solutions: *Do homework right after school. Do some work in class or in study hall.*

Communicating Ideas

INTRODUCE **THINK ABOUT IT** *Do you think it's important to tell people what you think or know? Did you know you can express yourself with more than just words?*

TEACH **LISTEN UP!** Effective **communication** is key to success in almost every area of life. We use communication to learn, to make group decisions, and to share our ideas with others. There are three major forms of communication.

- Oral communication is words spoken aloud.
- Written communication is words in writing.
- Nonverbal communication is **gestures** and other communication without words.

Tell students that each form of communication has a role in our everyday lives. Ask, *What kind of communication is it when I write e-mails? What kind am I using to teach right now? When I smile, shrug, or sigh, which kind am I using?*

LET'S EXPLORE List different kinds of communication, such as a conversation, a political speech, a text message, a contract, a smile, and a drawing.

- Have students classify each kind of communication as *oral, written, or nonverbal*.
- Discuss the purpose of each kind of communication.
- Have students provide and discuss other kinds of communication.

TIME FOR Q & A Discover how different forms of communication can be combined. Make connections between different kinds of communication from *Let's Explore* during Q & A.

▶ **How can you use nonverbal communication while speaking?**

Example: You may gesture for meaning or use facial expressions to express emotions.

▶ **How can you add nonverbal communication to a written report?**

Example: Illustrations and charts can add to a written report.

REFLECT *How can you better communicate your ideas?*

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COMMUNICATING IDEAS

LESSON OBJECTIVE

Express thoughts and ideas using oral, written, and non-verbal communication.

TERMS TO KNOW

communication: the exchange of information or the expression of a message

gestures: movements of hands or body to express or emphasize a thought

GOES WELL WITH LESSONS:
8, 69, 98

21st Century Activities ... Each done in under **21** minutes

PRACTICE

Let's Talk

Groups of three students use different kinds of communication to discuss a film or television program they have all seen.

- Students write the words *Oral, Written, and Nonverbal* on **note cards**.
- Each student takes a card. For two or three minutes, he or she should communicate using only the form on the card.
- After 2 or 3 minutes, students exchange cards and repeat until each student has used each card.

- CLASS WORK HOMEWORK
 EXTRA CREDIT PROJECT

APPLY

Oral Reports

Partners complete **Activity Sheet 25**.

- Students read the information about communication.
- Students choose a topic.
- Students plan their reports for 10 minutes using **note cards**.
- Partners practice, then give their reports. Each completes the checklist while listening.
- Students answer the questions in the **Journal (p. C3)**.

Possible Answers EVALUATE: **1.** Expressions told me how she was feeling. **2.** I spoke more clearly and made eye contact.

- CLASS WORK HOMEWORK
 EXTRA CREDIT PROJECT

EXTEND

Connect to Civic Literacy

To participate in your community, you must be able to express your ideas. Speaking at a town meeting, writing a political blog, or creating a campaign poster are just a few ways you can communicate with others to try and better your city, state, or country.

Use written communication to write a short letter to a politician or newspaper sharing your thoughts and feelings about an issue. Identify your topic and position clearly. Support your ideas with facts and examples.

- CLASS WORK HOMEWORK
 EXTRA CREDIT PROJECT

Oral Reports

INVESTIGATE Learn how to use different forms of communication.

Communication is the sharing of information. We communicate ideas in many different ways. We use words to speak and to write. We use our expressions, movements, and pictures to communicate nonverbally, or without words.



An oral report can combine different forms of communication. When you speak, your face and gestures help to express your feelings. Visual aids, including words and pictures, can help support your ideas.

DEVELOP Choose a topic below. Then plan a short oral report on the topic.

- A** A book you have read
- B** An animal you find interesting
- C** An event you have attended

Plan a short oral report as follows:

1. List facts about the event.
2. Write several paragraphs explaining your topic on a sheet of paper.
3. Make note cards and copy main ideas and words from your paper to trigger your memory when you read.
4. Prepare a visual aid using words or pictures.

COLLABORATE Meet with a partner to practice your presentations.

Use the checklist below to give each other helpful feedback.

My partner _____....	ALWAYS	SOMETIMES	NEVER
Spoke clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Used gestures effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Had good posture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provided clear visual aids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EVALUATE Answer the questions in your Journal.

1. How did your partner's non-verbal communication make the oral report better or worse? Explain.
2. How did you apply your partner's feedback to improve your presentation?