From the Common Core Curriculum Maps:
5th Grade English Language Arts Unit 1

(17) Albert Einstein

Podcasts will run between 12- 18 minutes
Podcast length: 17:02

THE walking classroom
walk. listen. learn.

LESSON PLAN

SYNOPSIS

The Walking Classroom kids teach about the famous physicist Albert Einstein. They discuss his life history, his theory of relativity and his many contributions to science. They also highlight his beliefs in social justice and the importance of accepting others' differences.

COMMON CORE STANDARDS (2 or 3_standards that will be addressed within lesson. These are taken directly from the Common Core State Standards)

SL.5.1 Engage effectively in a range of collaborative discussions on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

SL.5.1.d Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

Note: Also could apply to NC Essential Standards for Science Education:
5.P.1*. Understand force, motion, and the relation between them.*

OBJECTIVES (2 or 3 specific learning goals for the lesson that use Marzano/Bloom active verbs)

Students will:

- Identify the key moments in Albert Einstein's life
- Gain a basic understanding of the theory of relativity and Einstein's contributions to science
- Consider the importance of morals and values that go beyond scientific fact

PROCEDURE (procedure will stay the same for each walk. 2 or 3 vocab words per podcast—sentence is provided using word in context)

If you want to compare student comprehension before and after listening, administer the Comprehension Quiz before doing anything related to the podcast. Retest after walking.

1. Review key vocabulary (included definitions are limited to the context of today's podcast)

- **relative** (adjective): in relation to something else; compared to something else
  From far away, the giant tree looked very small relative to other objects.
- **physics** (noun): the branch of science that examines the physical nature of objects & how they interact with each other; examines concepts like mass, energy, and force
  The study of physics helps us understand how gravity works.
- **theory** (noun): An explanation or belief that is backed up by testing and observation that help verify whether or not it makes sense
  Einstein came up with the theory of relativity.

2. Build background by asking students, "Have you ever heard of Albert Einstein? What do you know about him?" (this would be a simple question to jump-start students' background knowledge)
   (allow time for discussion)

3. Podcast preview: "Did you ever sit in a car, stopped at a traffic light, when the car next to you started moving, and you thought your car was moving, but it wasn't? We refer to that as relativity. Today we're going to learn more about the famous scientist, Albert Einstein, and his theory of relativity. Ready? Let's go!"

4. Walk!

5. Upon return to the classroom, discuss the main ideas and highlights of the podcast. Main ideas and highlights might include the following:

- Einstein initially struggled in school, but math and science were areas where he could fit in and succeed. He could express himself through his formulas and theories.
- His theory of relativity has to do with your perspective. He pointed out that you can only tell if you are moving by comparing yourself to other objects around you.
- Einstein's curiosity and intelligence allowed him to make many contributions to science; however, he also lectured about the importance of social justice and civil rights.

6. Administer comprehension quiz.

QUESTIONS FOR THOUGHT AND DISCUSSION

(Question #1 will always be the same. Questions 2 and 3 will be related to the main ideas and overall understanding of the podcast. Question 4 will focus on character and/or an ethical decision to be made in the context of the podcast.)

1. Enthusiastically ask students how they feel post-walk. Foster a healthy attitude toward exercise by reminding students that physical activity improves brain function.

2. What did you learn about Einstein's life? What was his theory of relativity all about? Can you think of an example of relativity?

3. Why do you think Einstein felt like morals and values were more important than his scientific work? How do you think science and the pursuit of knowledge can be affected by a person's morals and values?

4. Einstein said, "Anyone who has never made a mistake has never tried anything new." Explain how that quote relates to your life. What are the risks and rewards of taking chances?

COMPREHENSION QUIZ ANSWER KEY

1. b
2. a
3. c
4. a
5. c
6. c
7. 3,2,1
8. b
9. a
10. b

For additional information on related websites and activities, visit our website:

www.thewalkingclassroom.org

THE walking classroom

Albert Einstein Comprehension Quiz

Name _____ Date _____

recall 1. Albert Einstein was a:

a. German physician b. German physicist c. German politician

recall 2. Part of Einstein's famous theory of relativity explains:

a. How you can only tell if you are in motion by looking at other objects
b. How you are only in motion if you are going above a certain speed
c. How there are set rules about motion that only scientists can understand

recall 3. Why did Einstein initially struggle in school?

a. He was actually not that intelligent.
b. He disliked math and science.
c. He got bored in school and had trouble speaking and spelling.

vocabulary 4. A theory is…

a. a way of explaining something about the world supported by observation and experimentation
b. a strongly held religious belief
c. a fantasy or dream

character trait 5. What word would best describe Einstein?

a. inventive
b. thoughtful
c. a and b

fact/opinion 6. Which of the following is a fact about Einstein?

a. He won the Heisman trophy for his scientific work.
b. He became interested in science after his father gave him a compass.
c. He believed in the need for an atomic bomb for his entire life.

sequence 7. Number the events in the order in which they happened (1=first, 2=second, 3=third)

_____ Einstein won the Nobel Prize.
_____ Einstein developed the Theory of Relativity.
_____ Einstein's father gave him a compass, sparking his interest in science.

inference 8. Why did Einstein also lecture and write about social justice and civil rights?

a. He believed that his scientific genius made him an expert on the subject.
b. He believed that morals and values were even more important than science.
c. He believed that the Jewish faith was superior to other religions.

health 9. You should try to get up and take at least a 10 minute break every hour when sitting still.

a. true b. false

health 10. You have to be at a gym to be exercising.

a. true b. false