

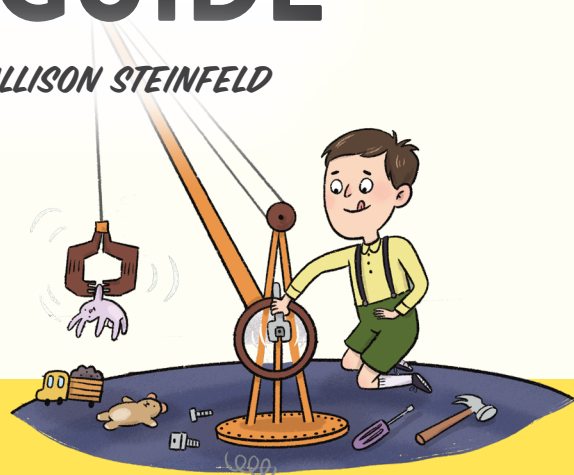
KID INNOVATORS

TRUE TALES OF CHILDHOOD FROM

INVENTORS AND TRAILBLAZERS

CURRICULUM GUIDE

STORIES BY *ROBIN STEVENSON* ILLUSTRATIONS BY *ALLISON STEINFELD*



COMMON CORE CONNECTIONS

Kid Innovators: True Tales of Childhood from Inventors and Trailblazers contains kid-friendly and relatable childhood stories of sixteen of the world's most talented people who have made revolutionary contributions to the world. This curriculum guide, with connections to the Common Core, includes an array of language arts activities, book discussions, vocabulary instruction, and more to accommodate the learning needs of most students in grades 4-7. Students are asked to be careful readers without jeopardizing the fun of reading.

Noted throughout the guide are correlations to the discussion questions and activities to specific Common Core Language Arts Standards. For more information on specific standards, visit the Common Core website at www.corestandards.org.

★ BIG IDEA PRE-READING ACTIVITIES ★

Previewing the text helps students understand the informational purpose of the book. Key characteristics of the text include the titles, table of contents, use of illustrations, chapter headings, bibliography, and index. Ask students to compare and contrast the format of *Kid Innovators* with another narrative book.

Have students choose a person featured in *Kid Innovators*. Then ask them to use the internet to research their inventor or trailblazer to find five facts about him or her they find interesting. Invite students to present their findings with the class. To extend this activity to a post-reading activity, have students go back and check to see how many of their facts were mentioned in the book.

Ask your class the following questions. Have students brainstorm, and then call on individual students to answer and write their answers on the board.

- ★ List at least five adjectives that you associate with the word “innovator.”
- ★ How do you think someone becomes an innovator?
- ★ Name as many inventors as you can think of.
- ★ Name as many trailblazers as you can think of.
- ★ How are each of the inventors and trailblazers you named innovators?
- ★ How are inventors and trailblazers alike? How are they different?
- ★ Look at all of the people featured in *Kid Innovators*. Which one do you think had the most interesting childhood? Why?
- ★ Have you ever thought about the person who invented your favorite things or did something significant to make your life easier?
- ★ If you could be known for doing or making something innovative, what would you want it to be? Why?
- ★ How do you think an inventor comes up with his or her inventions?
- ★ What do you think makes a trailblazer worth learning about?
- ★ What do you think is the most important characteristic a person needs in order to become an inventor? Why? What about a trailblazer?
- ★ Which inventor or trailblazer featured in *Kid Innovators* are you most interested in learning about? Why?
- ★ What would you rather be known for: inventing something or being a trailblazer? Why?
- ★ Write an explanatory essay on why you think it’s important to learn about inventors’ and trailblazers’ backgrounds and childhoods.

PRE-READING COMMON CORE CONNECTIONS

The Discussion Points address the following Common Core State Standards:

WRITING:

Text Types and Purposes

Grade 4 – W.4.1-3e

Grade 5 – W.5.1-3e

Grade 6 – W.6.1-3.e

Grade 7 – W.7.1-1c, 2-2d, 3-3e

Research to Build and Present Knowledge

Grade 4 – W.4.7-9b

Grade 5 – W.5.7-9b

Grade 6 – W.6.7-9

Grade 7 – W.7.7-9a

SPEAKING AND LISTENING

Comprehension and Collaboration

Grade 4 – SL.4.1-2

Grade 5 – SL.5.1-1d

Grade 6 – SL.6.1-2

Grade 7 – SL.7.1

SPEAKING AND LISTENING

Presentation of Knowledge and Ideas

Grade 4 – SL.4.4-6

Grade 5 – SL.5.4-5

Grade 6 – SL.6.4-5

Grade 7 – SL.7.4-5

★ DISCUSSION QUESTIONS ★

FOR KIDS HUNGRY FOR KNOWLEDGE

- ★ How did Grace Hopper's great-grandfather influence her life?
- ★ Explain what Steve Jobs's quote "you've got to find what you love" means and how it pertains to his life.
- ★ Why is it a good thing that Bill Gates did not fail his entrance exam to Lakeside School?
- ★ What did Reshma Saujani do after she ran for U.S. Congress and lost?
- ★ How did a punishment Jacques Cousteau receive turn out to be a reward?
- ★ How did a childhood toy inspire the Wright brothers later in life?
- ★ In what ways did weather play a role in William Kamkwamba's decision to become an inventor?
- ★ How did Elon Musk's love for science fiction launch his future career ambitions?
- ★ How did the Turing machine help Britain defeat Nazi Germany in World War II?
- ★ In what ways did Hedy Lamarr truly live a double life?
- ★ How did the polio epidemic and anti-Semitism inspire Jonas Salk to explore life's big questions and problems?
- ★ In what ways did Florence Nightingale's cheeky personality aid her in pursuing nursing?
- ★ How did being treated badly by male students and teachers help Maria Montessori succeed?
- ★ What loss, poverty, and hardships did Madam C.J. Walker overcome during her childhood that shaped her into a great businesswoman?
- ★ What childhood experiences helped Walt Disney become the legendary artist and entrepreneur he's known as today?
- ★ Why didn't Alvin Ailey want to be a professional dancer when he was a child?
- ★ Pick one inventor and one trailblazer from *Kid Innovators*. Compare and contrast two of their childhoods and explain how each one's upbringing contributed to his or her successes.
- ★ What do the people in each of the three parts of the book—Part One: Tech Revolution; Part Two: Seas, Skies, and Outer Space; Part Three: Cracking Codes and Saving Lives; and Part Four: Trailblazers—all have in common? Why do you think the author set the book up this way?
- ★ List all sixteen people featured in *Kid Innovators*. Then write down two adjectives that describe each one.
- ★ Which inventor or trailblazer featured in *Kid Innovators* do you like the best? Why?
- ★ Using examples from the book, explain how you relate to one of the people featured in *Kid Innovators*.

DISCUSSION POINTS COMMON CORE CONNECTIONS

The Discussion Points address the following Common Core State Standards for Reading Informational Text:

Key Ideas and Details

Grade 4 – RI.4.1–3
Grade 5 – RI.5.1–3
Grade 6 – RI.6.1–3
Grade 7 – RI.7.1–3

Craft and Structure

Grade 4 – RI.4.4–6
Grade 5 – RI.5.4–6
Grade 6 – RI.6.4–6
Grade 7 – RI.7.6

Integration of Knowledge and Ideas

Grade 4 – RI.4.7, 9
Grade 5 – RI.5.9
Grade 6 – RI.6.9
Grade 7 – RI.7.9

Range of Reading Level of Text Complexity

Grade 4 – RI.4.10
Grade 5 – RI.5.10

★ VORACIOUS VOCABULARY ★

Review this list of vocabulary words found throughout *Kid Innovators*. First ask students if they can guess the word's meaning by rereading each word in the context of the story. Then have them use dictionaries to check themselves and/or define the word. Also have them use each word in a sentence of their own. Since there are so many vocabulary words, you may choose to review these words over a few class periods and assign some for homework. You can also use them for your weekly list, daily word study, or spelling exercises.

Introduction

solution
innovator
trailblazer
pursue
passion
tinker
entrepreneur
revolutionize
approaching
inquisitive
voraciously
skepticism
scorn
predicted
absurd
preposterous
confidently
persistent
despair
obedient
absent-minded
inspire

Grace Hopper, The Grand Lady of Software

software
development
trendy
monument
retired
admiral
mutton-chop
encounter
secure
insurance broker
curiosity
cog
mechanism
discourage
experimentation
incident
amputated
various
prospered
prosthetic
thumbtacks
assumed
opinionated
responsibilities
bore

siblings
maternal
lectures
defend
logically
persuasive
motto
extended
trolley
essential
needlepoint
knitting
crocheting
warden
resourceful
fond
unemployment
reluctant
admit
convinced
translate
boundless
innovation
intuition
defied
convention
abandon
grasped

Steve Jobs, Love What You Do

transformed
digital publishing
industry
graduate
adoption
socket
toasty
capability
specifically
emphasis
mechanic
admired
engineer
mentor
carbon
amplified
proudly
receiver
complex
occupied
chaos

combination
memorize
authority
bribing
environment
motivated
noted
scraped together
equipped
passionate
rebellious
rejection
holography
emitting
diodes
frequency
pulses
adept
satisfied

Bill Gates, I'm Thinking!

cofounding
global
inequity
nonprofit
leadership
energetic
confusing
deciphered
constantly
despite
frustration
podium
merit
unofficial
strong-willed
arbitrary
counselor
psychology
devices
cope
disorganized
briefcase
strict
deliberately
bulky
modem
mainframe computer
enormous
exceptionally
manual

coding
monopolizing
state-of-the-art
showroom
suggested
fanatical
ignored
ridiculous
payroll
recruited
scheduling
analyzing
survey
microprocessor
pave the way
wealth
generated
foundation
climate change

Reshma Saujani, Embracing Failure

politician
international
encourage
heritage
descendants
colony
crucial
economy
generation
immediately
plea
refugee
prejudice
racism
recalled
cosmetics
machinist
community
political awareness
vital
biography
injustice
fearless
pursue
ambitious
rampant
intimidating
strategy
advocate

reduction
peer
culture
sponsored
accomplish
tolerance
criticism
trait
activism
diversity
immigrant
mentality
rejected
accepted
Congress
devastated
embrace
regardless
outcome
inequality
robotics
gender
resources
authentic
pioneering

**Jacques Cousteau,
Breathing Underwater**

scuba
documentary
merchants
qualified
luxuries
yacht
rarely
conscious
swaying
employer
outskirts
shortage
uncomfortable
voyage
chatted
stewards
delighted
personality
regularly
fluent
accent
struggled
frail
displayed
constructed
cranks
pulleys
swivel
rotating
saddle
dismounted
defiance

murky
retrieving
snorkel
reeds
recovering
awkward
filmmaking
allowance
hand-cranked
reassembling
develop
splice
continuous
reel
plot
villains
suspended
hobby
aviator
spearfished
algae
glimpse
brilliant
posed

**Wilbur and Orville Wright, The
Brothers Who Wanted to Fly**

controlled
inseparable
frequently
clergymen
dozen
settling
bishop
genius
abilities
enthusiastically
souvenir
bamboo
propellers
creations
varied
intellectual
mischievous
troublemaker
remarkable
cruel
excruciating
depressed
outstanding
declining
tuberculosis
tombstone
publishing
timid
averse
hence
thoroughly
reassure
cycling

trend
bloomers
shockingly
indecent
undeterred
critic
repairing
equilibrium
glider
reigniting
sparked
theory
bi plane
piloting
engine
carved
increasingly
dimension
pitch
yaw
steer
axis
chemist
scholar
mosque
crater

**William Kamkwamba,
Electric Wind**

famine
tobacco
daydream
miracle
autobiography
terrifying
overheard
witch doctor
confessed
sobbed
solid
compete
carton
derby
splatter
unusual
sacrificed
flood
crops
drought
survive
looming
dynamo
gadget
wilt
crisis
surplus
stress
fortunately
starving
secondary

district
vowed
transfer
fee
suffering
harvest
primary
hydroelectricity
turbine
magnetism
scrapyard
gearbox
clothesline
gather
media
provide
solar power
irrigation

**Elon Musk, Electric Cars
and Rockets to Mars**

solar roof
erratic
controversial
nonetheless
colonizing
publicity stunt
governed
supremacy
segregation
apartheid
relatively
tension
negatively
chiropractor
eccentric
mythological
finalist
pageant
dietician
adenoid glands
trance
visually
processing
internal
quirkiness
complain
absence
tendency
flaw
include
journey
panicked
sprinted
refuse
incredible
bricklaying
commonplace
barely
compelling

emerged
various
canister
arcade
necessary
document
science fiction
creature
physics
purpose
citizenship
passport
chainsaw
boiler room
reunited
enroll
humanity
renewable energy
founding
impact

**Alan Turing, Code-Breaking
Hero of World War II**

enigma
artificial intelligence
climate
coastal
despised
distant
stereotypically
bookworm
cheeky
phrase
marrow
shall
sketch
communion
incense
lamppost
concept
fountain pen
splotch
atlas
nettle
coined
concoction
unsociable
geometric
diagram
organic
coincide
strike
arrival
neglect
slipshod
ludicrously
charity
cryptanalyst
unrelated
theoretical

decryption
imitation
distinguish
deny
pardon
legacy
convoy

Hedy Lamarr, A Double Life

decade
wireless
unfolding
convert
residential
velvet
adore
enchanted
privileged
governess
spoiled
praise
furious
countryside
anti-Semitism
finishing school
etiquette
rhubarb
headmistress
cinema
hailed
drafting table
dissolved
carbonated
torpedo
jammed
patented

**Jonas Salk, An Instinct to
Improve Our World**

instinct
polio
paralyzed
vaccination
caul
membrane
indication
persecution
garment
czar
botanical
epidemic
overflowing
isolation
rely
spared
easygoing
intense
complaint
appreciate
reflect
eldest

suffocating
invested
instinct
impulse
universal
patient
remainder
competitive
campus
majority
breadline
debate
mediocre
self-contained
smallpox
virus
mild
antibodies
immune
eradicated
prevent

**Florence Nightingale, The
Invention of Modern Nursing**

unskilled
servant
abroad
settlement
mansion
rare
heather
fluently
elegant
condition
moors
nuthatch
lumbago
observant
eclipse
compliant
dutiful
contrary
spoil
permanently
forlorn
depart
affectionate
agitation
deterred
volunteer
infectious
overcrowded
hygiene
reputation
transform

**Maria Montessori,
Rethinking Education**

rethink
groundbreaking
revolution

peninsula
unified
accountant
paleontologist
unusually
progressive
conservative
peacemaker
required
attend
enforced
population
lack
circumstances
foster
drilling
well-rounded
particularly
innate
assertiveness
hesitate
dismissively
structure
emphasized
dignity
critical
expression
unconventional
persisted
imaginative
lecture
absorb
consider
technical
abandoned
disabilities
capable
influenced
numerous

**Madam C.J. Walker,
Craving the Beautiful**

crave
manufacturing
self-made
poverty
symbol
slavery
plantation
enslaved
labor
confederate
rickety
cypress
gnats
swarm
humid
economic system
turmoil
formally

ranging
bayou
cholera
typhoid
porter
steamboat
worsening
flee
practical
paved
support
barber
alternative
previous
advertise
demonstrations
philanthropist
scholarships
donated
funds
preparations

**Walt Disney,
Creating Happiness**
weeping willow
orchard
appeal
quick-tempered
elderly
fondest
tar
prompting
repeat
leisure
catapulted
profit
resist
debt
skit
vaudeville
forged
canteen
canvas

caricatures
illustrator
animation
persuaded
visionary
slit
**Alvin Ailey, All That
Was Inside You**
praying mantis
discrimination
legal
rundown
alongside
wildflowers
limp
thrashed
procession
baptized
pew
fluttering
choreographed

biological
booming
featured
admission
bowed over
glitz
choral music
intention
sissy
defeated
amazed
orchestra
superb
realm
legitimate
congregation
spellbound
assembly
rehearse
homophobia
dedicated
blending

After your class is familiar with the vocabulary list, invite them to choose 15–20 words to use to write their own short stories featuring their favorite *Kid Innovators*.

VARSITY VOCABULARY BOOSTERS COMMON CORE CONNECTIONS

The vocabulary activities address the following Common Core State Standards for Language:

Conventions of Standard English

Grade 4 – L.4.1–2
Grade 5 – L.5.1–2
Grade 6 – L.6.1–2
Grade 7 – L.7.1–2

Knowledge of Language

Grade 4 – L.4.3
Grade 5 – L.5.3
Grade 6 – L.6.3

Grade 7 – L.7.3

Vocabulary Acquisition and Use

Grade 4 – L.4.4–6
Grade 5 – L.5.4–6
Grade 6 – L.6.4–6
Grade 7 – L.7.4–6

★ LANGUAGE ARTS ACTIVITIES ★

Creative Comics

The inventors and trailblazers in *Kid Innovators* are real-life superheroes. Have students choose two of the people in *Kid Innovators* and ask them to create a comic strip featuring an interaction between them. Instruct them to create a scenario on how the two meet, what they talk about, and what they accomplish together, while using dialogue and actions that would be seen in a traditional comic strip. Be sure to invite students to share their finished products with the class, and then publish their work in a classroom comic book.

Best of the Best

Have each student pick the innovator they most identify with. Then have them write an argumentative essay about how his or her childhood paved the way for them to become a success. Encourage them to back up their arguments with facts and figures from *Kid Innovators*. Then, have students read their essays to the class, debate on which figure contributed the most to society, and vote on which innovator “wins” in the following superlatives: Biggest Trailblazer, Most Unique, Best Childhood Story, Most Creative, Most Obstacles to Overcome, Best Role Model, Funniest, and Most Contributions to Society, and three more categories you come up with as a class.

Big Idea Cards

Instruct your class to make business cards for a person featured in *Kid Innovators*. Traditional business cards measure 3.5 inches by 2 inches. Using the pictures and facts found in the book and on the internet, have students research the innovator’s life and work. Then have them create cards featuring facts about them on one side and his or her greatest inventions, creative solutions, groundbreaking work, and achievements on the other. Have students present their cards to the class.

Dear Diary

Have students choose a person featured in *Kid Innovators*. Then have them write diary entries in the voice of the innovator they selected about daily life in his or her childhood. Have students write one entry per day while you are teaching the book. To help spark ideas, suggest topics such as school, home life, hobbies, favorite foods, celebrations, friendships, obstacles they have to overcome, and trouble from peers and adults.

Extra! Extra! Read All About it!

Tell your students to become newspaper reporters for the day. Ask them to choose a figure from *Kid Innovators* to learn more about. Then have them use material from the book and do outside research to create an informational piece about an event or achievement from their chosen innovator’s childhood to share with the class. Compile and publish all of the articles in a newspaper and distribute it to the class.

Fun Fact Presentations

At the end of *Kid Innovators* there is a bibliography that lists other books written by and about the sixteen people featured throughout the book. Ask your students to choose one of the books listed, read it, take notes, and present at least ten new facts they learned from it. Their presentation can take the form of a traditional speech, PowerPoint, blog or vlog post, podcast, or video—or whatever medium they feel most excited to use to share their findings.

Inspirational Art

Ask each student to choose an innovator from *Kid Innovators*, and then ask them to think about what that person is known for. Instruct each child to create a collage of images, words, phrases, and quotes that represent the innovator’s childhood and greatest achievements. In an attempt to inspire others, hang the finished collages around the classroom or school hallway so everyone can see them.

Innovating Comparisons

Currently, there are seven books in the Kid Legends series. Besides *Kid Innovators*, there is *Kid Presidents*, *Kid Athletes*, *Kid Artists*, *Kid Authors*, *Kid Scientists*, and *Kid Activists*. Have students choose one innovator and another person featured in any of the other Kid Legends books. Then, have the children compare and contrast the two figures, by listing the things they have in common and the things about them that are different. Spark interest by suggesting they look at: why each person is famous, their careers, their family life, things that inspired them, childhood experiences, how they overcame obstacles, and what they are remembered for today. Instruct students to use their lists to help them write a compare and contrast essay.

LANGUAGE ARTS ACTIVITIES COMMON CORE CONNECTIONS

The Language Arts Activities address the following Common Core State Standards:

WRITING:

Text Types and Purposes

Grade 4 – W.4.1–3e

Grade 5 – W.5.1–3e

Grade 6 – W.6.1–3.e

Grade 7 – W.7.1–1c, 2–2d, 3–3e

Production and

Distribution of Writing

Grade 4 – W.4.4–6

Grade 5 – W.5.4–6

Grade 6 – W.6.4–5

Grade 7 – W.7.4–6

Research to Build and Present Knowledge

Grade 4 – W.4.7–9b

Grade 5 – W.5.7–9b

Grade 6 – W.6.7–9

Grade 7 – W.7.7–9a

SPEAKING AND LISTENING

Comprehension and Collaboration

Grade 4 – SL.4.1–2

Grade 5 – SL.5.1–1d

Grade 6 – SL.6.1–2

Grade 7 – SL.7.1

Presentation of Knowledge and Ideas

Grade 4 – SL.4.4–6

Grade 5 – SL.5.4–5

Grade 6 – SL.6.4–5

Grade 7 – SL.7.4–5

★ ABOUT THE BOOK ★

PRAISE FOR THE KID LEGENDS SERIES:

- ★ “A broadly diverse roster of role models.”—*Kirkus Reviews* ★ “Engaging and empowering.” —YAYOMG.com ★
★ “Outstanding. . . Inspiring and entertaining.”—*Booklist*, starred review ★



Throughout history, people have made the world a better place with their experiments and ideas. *Kid Innovators* tells the stories of a diverse group of brilliant thinkers in fields like technology, education, business, science, art, and entertainment—reminding us that every innovator started out as a kid, and in some cases they *were* kids when they began changing the world. Featuring kid-friendly text and full-color illustrations on nearly every page, readers will learn about the exciting discoveries, advancements, innovations, and young lives of Grace Hopper, Steve Jobs, Bill Gates, Reshma Saujani, Jacques Cousteau, the Wright Brothers, William Kamkwamba, Elon Musk, Alan Turing, Hedy Lamar, Jonas Salk, Florence Nightingale, Maria Montessori, Madam C.J. Walker, Walt Disney, and Alvin Ailey.

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Also available as an e-book

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Ages 9 to 12 | Grades 4 to 7

★ ABOUT THE AUTHOR & ILLUSTRATOR ★

Robin Stevenson is an award-winning author of books for kids and teens, including *Kid Activists*. Her writing has been translated into several languages and published in more than 10 countries. She lives with her family on the west coast of Canada. **Allison Steinfeld** obtained a BFA from the School of Visual Arts in New York City.