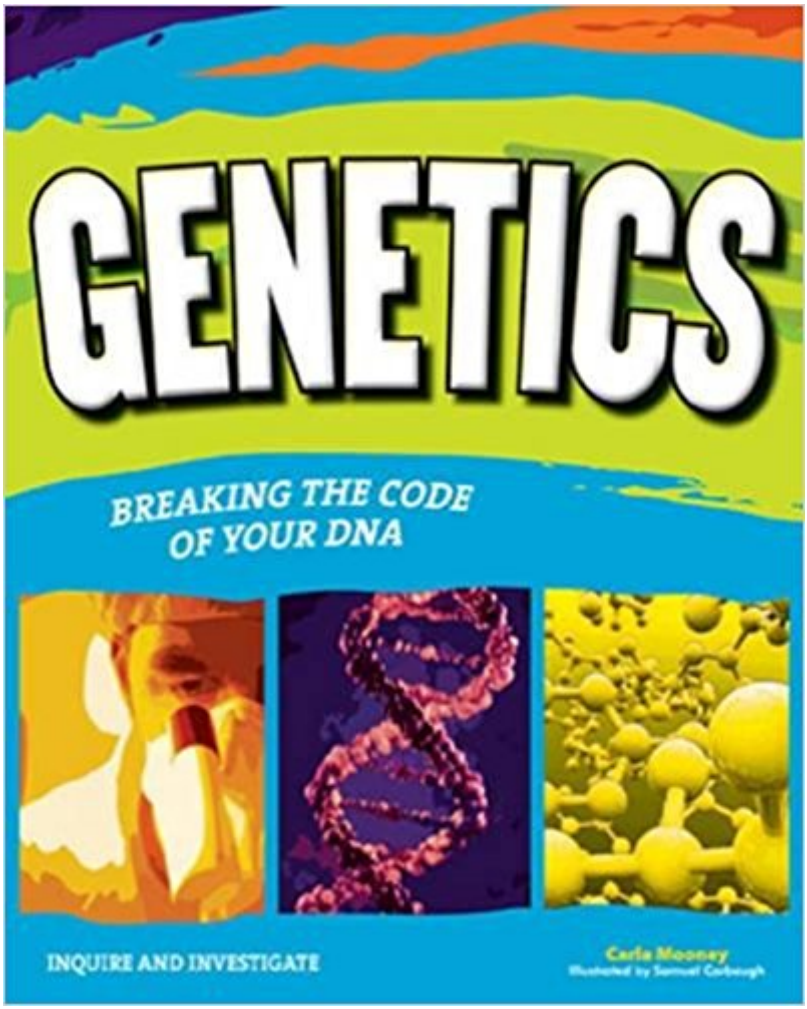
# GENETICS: BREAKING THE CODE OF YOUR DNA (Inquire And Investigate)



## Synopsis

Why do children resemble their parents and siblings? Introducing young readers to the fascinating world of genetics, this educational resource presents the main concepts of the science, including what a chromosome does, how DNA is structured, and how genetic inheritance works. Students learn about new discoveries in the field of genetics and how those discoveries have helped to cure or even prevent certain diseases, as well as examine controversial issues in genetics such as genetically modified foods and stem cell research. Combining inquiry-based, age-appropriate activities with biology, Genetics: Breaking the Code of Your DNA features graphic novel illustrations, fascinating sidebars, and a glossary of important vocabulary to illuminate the complex world of genetics and bring it to life. Projects include building 3D DNA double helix models, extracting DNA, using a Punnet Square to predict an offspringÃ¢â ¬â„¢s probability of inheritance, and evaluating the benefits and risks of genetically engineering a new species. Additional materials include a list of current reference works, websites, and Internet resources.Genetics meets common core state standards in language arts for reading informational text and literary nonfiction and is aligned with Next Generation Science Standards. Guided Reading Levels and Lexile measurements indicate grade level and text complexity.nce

## Book Information

Lexile Measure: 1040 (What's this?)
Series: Inquire and Investigate
Paperback: 128 pages
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ISBN-10: 1619302128
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Shipping Weight: 9.6 ounces (View shipping rates and policies)
Average Customer Review: 3.9 out of 5 stars 9 customer reviews
Best Sellers Rank: #280,451 in Books (See Top 100 in Books) #9 inÃ Â Books > Teens > Education & Reference > Science & Technology > History of Science #16 inÃ Â Books > Teens > Education & Reference > Science & Technology > Experiments & Projects #49 inÃ Â Books > Teens > Education & Reference > Science & Technology > Chemistry
Age Range: 12 - 15 years

Grade Level: 6 - 10

## Customer Reviews

Gr 6Ã¢â ¬â œ10Ã¢â ¬â •This exploration of genetics uses the question "How are traits inherited from one generation to the next?" as a jumping-off point. Each chapter explains key discoveries and advances that have led to our current understanding of genetics, starting with Gregor Mendel. A variety of topics are covered: the discovery of DNA, the role of genes and chromosomes, the process of mitosis and meiosis, and the importance of RNA. The book also examines genetic mutations and scientific advances in the field, such as DNA fingerprinting, genetically modified organisms, and cloning. Written in a conversational style, this text renders complex content comprehensible. Each chapter includes many hands-on activities of varying degrees of usefulness and effectiveness. Given minimal but generally sufficient instructions, students are asked to recreate a version of Mendel's experiment, create a Punnett square, extract DNA from fruit, and create a model depicting meiosis, among other tasks. Internet access is required for some activities. Black-and-white, comic booklike illustrations impart some information but mostly add humor. Sidebars contribute additional facts, including scannable QR codes that link to helpful videos, such as clips on sexual reproduction and mitosis available though YouTube on Hank Green's Crash Course channel. These codes are a great addition, assuming students have access to a smartphone or a tablet app. A solid STEM resource recommended for general interest as well as supplemental curricular use.Ã¢â ¬â •Ragan O'Malley, Saint Ann's School, Brooklyn, NY --This text refers to the Hardcover edition.

What do dimples, a widowÃ¢â ¬â„¢s peak, and a cleft chin all have in common? Genetics! Beginning with a time line and an introduction to the study of heredity, this entry in the Inquire and Investigate series explains genetics in eight chapters that build upon one another. The first chapter presents Gregor Mendel, the father of genetics, and his groundbreaking work with pea plants. Other chapters highlight the makeup of cells, DNA and how it sends messages, genes and chromosomes, sex cells and meiosis, and gene mutations. A final chapter considers genetic advances, such as genetic modification and cloning, and ethical questions pertaining to these issues. Each chapter concludes with easy-to-follow inquiry-based activities and experiments that emphasize the scientific method and help students understand the topic. Numerous cartoons, facts, and QR codes that link to videos add further interest. Although the book can be used independently, it will be better appreciated with some background knowledge. A solid resource that shows life science and biology

students the practicalities and marvels of genetics. Grades 4-7. --Angela Leeper

Great book!

This was a very well written genetics book. It covers the bases well, although it does leave some gaps. (Such as incomplete dominance, and problems with cloning). It is a good base, it has simple inquiry activities and labs. I believe that is middle school level rather then high school level. That said, it still has some good ideas. Not as complex or as well developed as I had hoped, but Good nonetheless.

Great book for kids to begin learning the basics of genetics.

Awesome book. Perfect research tool for science fair project on DNA

Information was useful as were the graphics and ideas for extending the lessons.

Great book. Ordered it for a middle school science project.

Just got the book. Many stories never heard.

I was required to purchase this book for a genetics class I taught to young students (8-9 years old). It is not a very good book and I would not recommend it. The author has a strong anti-GMO agenda which prevents objective (and sometimes accurate) discussion of several topics related to genetics. The activities are poorly designed and there are not in-book activities for students to do. This book may only be of interest to extremely avid young biologists because the writing is not terribly engaging. Regardless of any personal stance on genetic engineering or genetic testing, the author's clear agenda prevents this book from being scientific.

Social Change (Inquire and Investigate) Shakespeare: Investigate the Bard's Influence on Today's World (Inquire and Investigate) Music: INVESTIGATE THE EVOLUTION OF AMERICAN SOUND (Inquire and Investigate) DNA Testing Guide Book: Utilize DNA Testing to Analyze Family History Genealogy, Classify and Measure Ethnic Ancestry Research, And Discover Who You Are ... DNA Testing, Ancestry, Ancestry Research) The Brain: Journey Through the Universe Inside Your Head (Inquire and Investigate) FORENSICS: UNCOVER THE SCIENCE AND TECHNOLOGY OF CRIME SCENE INVESTIGATION (Inquire and Investigate) The Holocaust: Racism and Genocide in World War II (Inquire and Investigate) THE ROARING TWENTIES: Discover the Era of Prohibition, Flappers, and Jazz (Inquire and Investigate) Human Movement: How the Body Walks, Runs, Jumps, and Kicks (Inquire and Investigate) The Science of Science Fiction (Inquire and Investigate) The Great Depression: Experience the 1930s From the Dust Bowl to the New Deal (Inquire and Investigate) Terrorism: Violence, Intimidation, and Solutions for Peace (Inquire & Investigate) Cells: Experience Life at Its Tiniest (Inquire and Investigate) The Space Race: How the Cold War Put Humans on the Moon (Inquire & Investigate) The Civil War: The Struggle that Divided America (Inquire & Investigate)