

# Science Crackers

Grades 3-6 (4 book series w/lab project)

Astronomy, Chemistry, Physics- Inquiring minds want to know... so read on! Clear and concise facts, amazing images, cool cartoons and fun activities for budding scientists. Text features include: headings, diagrams, labels, captions, index, glossary and many images that enhance meaning.

**Books in This Set:** Awesome Astronomy; Fizzing Physics; Crackling Chemistry; Bubbling Biology; Slime Lab

**Learning Objectives:** Compare and contrast books in a series on craft and structure, content and science concepts. Ask and answer questions, identify informational text features, understand the relationship between chemistry, biology, physics and astronomy.

**Essential Questions in This unit:**

- How is information effectively organized within nonfiction?
- How do text structures and features help a reader better understand the meaning?
- How do vocabulary, particular details, and relevant evidence combine to create the central idea of an informational text?
- How does discussing or writing about informational text help to sharpen our thinking?
- How are biology, chemistry, physics and astronomy related?

Read Science Crackers Fizzing Physics, Bubbling Biology, Crackling Chemistry and awesome Astronomy to find out:

1. Why read non-fiction?
2. What is unique about non-fiction verses fiction text?
3. How do I read non-fiction differently than fiction?
4. How can reading non-fiction help us explore and understand our world?
5. How does the author Steve Parker create meaning in the **Science Cracker** Books?
6. What do you think he wants to answer, describe and explain?
7. Write questions as you read each book. Discuss with a partner.
8. What is the main idea of each book in the series? Determine the main idea and explain how it is supported by key details; summarize the text.
9. How does Steve Parker structure the Science Crackers series? Are the books structured the same way?

10. How does the structure of each book contribute to the meaning?
11. What text features help guide you to look for content in each of the books?
12. What purpose does the author have for writing this series? What do you think he wants to answer, describe and explain?
13. What is the tone and style? Are the books consistent?
14. Why are physics, biology, chemistry and astronomy important?
15. Find an idea in each book that explains something that you can personally relate to.
16. How can you use evidence from the text to demonstrate an understanding of that text?
17. Use evidence from the text to explain how physics, chemistry, biology and astronomy are connected.
18. How do I determine the validity of information?
19. Find examples of primary and secondary sources from the books. Explain how they contribute to the authenticity of the information.
20. What is the science behind it? Wearing a seatbelt, ice sculptures, seeing the moon at night, a plant grows where no one planted a seed.
21. Discuss each science using evidence from the books.
22. Explain how specific experiments work to demonstrate a particular scientific concept.
23. Determine the meaning of general academic and domain-specific words and phrases from each book that are relevant to new science concepts. Create a science word wall.
24. Are there certain vocabulary words that you found in more than one of the titles? Explain.
25. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided. Is reading about a rainbow the same as creating a rainbow?
26. How does Steve Parker integrate visual information? How do the illustrations enhance meaning and tone?
27. Interpret information presented visually in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages and explain how the information contributes to an understanding of the science concept.

28. As you read through the books write down key words that define and explain the science. EX)  
Physics; motion, force, gravity, light, sound

### Activities

Write a quiz for each chapter in one of the Science Crackers titles.

Choose one of the science topics; chemistry, biology, physics or astronomy. Write in a daily journal explaining how you observe the science in your everyday life.

Write a fictional story integrating physics, chemistry, biology and astronomy.

Report on a science topic from the *Science Crackers* series sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. Include multimedia components (graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas.

Find examples from each book of how science is related to technology, math and art.

**For more information on this topic, please refer to the books below:**

9781682970249	Awesome Astronomy
9781682970263	Crackling Chemistry
9781682970270	Fizzing Physics
9781603803298	It's Alive! Slime Lab
9781682970256	Bubbling Biology