



## Great Works Unit Prospectus Time After Time

|                 | STEAM  | WORLD  |
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| <b>Text</b>     | <i>The Order of Time</i> ,<br>Carlo Rovelli  | <i>The Fire Next Time</i> ,<br>James Baldwin   |
| <b>Subjects</b> | Thermodynamics, entropy,<br>metabolism, time   | American history, civil rights, the<br>essay form  |
| <b>Projects</b> | <b>The Fire Inside</b><br>Students explore how the<br>chemical reactions collectively<br>known as metabolism enable a<br>living organism to maintain<br>homeostasis, thereby keeping<br>entropy low and organisms alive. | <b>The Fire in 1963</b><br>Students hone in on the year<br>1963, when <i>The Fire Next Time</i><br>was published, teasing out the<br>themes that characterize the<br>year. Then, they create a<br>catalogue of the year's<br>significant events according to<br>the themes they've identified. |

The passage of time marks a loss of energy in the form of heat, but a moment in time can be an explosion. In this unit, students explore heat from both angles, coming to understand the implications of a slow leak and the consequences of a symbolic combustion.

Use this prospectus to gain a sense of the lessons in physics your child will be exploring and the deep dive they'll take into the U.S.'s civil rights era.

### ***The Order of Time*, Carlos Rovelli**

In this text, the author explores the laws of thermodynamics, entropy, and the nature of time. Weaving together ideas from philosophy, science, and literature, Rovelli contrasts the human experience of time with the physical evidence that it is not something that exists objectively.

### **Discussion Questions and Topics**

The concept of entropy unites the text and the STEAM projects. Here are some relevant questions to discuss with your child:

- What is entropy and how does it explain, in part, our understanding of time?
- How do living systems maintain low levels of entropy, and why must they?
- What was one of your most profound takeaways from this text, and why?
- What type of fermented product did you prepare for your STEAM project, and how does it relate to the concept of entropy?

### Ways to Engage

- Watch “[The Arrow of Time](#)” to learn more about entropy and time.
- Read “[Energy and How to Get It](#)” for an entertaining overview of how humans maintain low entropy.
- Check out the [Museum of Timekeeping](#).

### ***The Fire Next Time*, James Baldwin**

Consisting of two epistolary essays, this text focuses on the central role of race in American history and the connections between race and religion in the U.S. It invites an exploration of the politics and tensions of mid-twentieth century America — and the social fire that was threatening to erupt.

### Discussion Questions and Topics

- One of America’s best and most important writers, James Baldwin argued that all U.S. citizens, regardless of racial identity, were victims of racism. How might this be true?
- Baldwin wrote beautiful novels — and equally beautiful essays. Why might he have chosen the essay form to address the particular topics addressed in *The Fire Next Time*? Why might he have chosen to write the book’s essays in the form of letters?
- In 1963, the United States was still racially quite segregated. While segregation is not a part of the country’s legal structures any longer, some would argue that it still determines many societal realities. How might this be the case? What’s worse: outright segregation or hidden segregation? Why?

### Ways to Engage

- Watch [James Baldwin discussing racial prejudice and civil rights activism](#) on the Dick Cavett Show in 1969.
- Watch “[The World According to James Baldwin](#)” for a better understanding of Baldwin’s life and work.
- From 1971 to 1987, the last sixteen years of his life, Baldwin lived in the South of France, creating there a social center for artists and intellectuals from around the world. Explore “[Chez Baldwin](#),” a digital exhibit that features Baldwin’s home and explains how it became a crucial part of his identity.