Instructional Materials for *Einstein und die Zeitmaschinen*

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Einstein und die Zeitmaschinen by Luca Novelli

**Topic:** History of Science

**Overarching Theme:** Science and Technology, Personal and Public Identities

**Global Goals:** Students will understand that they are developing into independent readers who adapt to different texts and use appropriate reference sources as needed. Students will understand that they can scan authentic texts in order to locate desired information. Students will be able to make connections across several academic disciplines.

**Essential Questions:** Was fuer einen Mensch war Einstein? (What kind of human being was Einstein?)

**Targeted Proficiency Levels:** A2-B1 / Intermediate Low – Intermediate Mid

**Length of Unit:** fifteen 45 minute periods

**Standards and Modes of Communication:**

- **Interpersonal Speaking:** Using the target language, students will interact with their partner in small groups and to create their presentations while completing reading activities. Students will interact with teacher throughout the unit in the target language.
- **Interpretive Text and Audio:** Students will read the authentic text.
- **Presentational Writing:** Students will create a poster for a presentation using the target language.
- **Presentational Speaking:** Students will present their posters to classmates.

**How Standards are addressed:**

- **Culture:** school system in German-speaking countries, music, geography, desiring Italy, hiking
- **Connections:** Topics include: history, physics, math, geography, music, science, politics, religion
- **Comparisons:** Students will compare school and educational systems. Students will compare linguistic features between their native language and the target language.

**Language Functions/Objectives**

**Structures:**

**Vocabulary:** verbs, idiomatic phrases, science-specific, everyday life

**Assessments**

- **Summative:** Students will create a RAFT writing task. (See Appendix D)
- **Formative:** During the course of the book students will complete various activities and the teacher will interact with the students to determine students’ comprehension at various points throughout the unit. Students will also participate in a gallery walk. Upon completion of the
reading the book, students will create and present a poster incorporating information about Einstein’s life from the book to the class.

Materials

- The book *Einstein und die Zeitmaschinen* by Luca Novelli
- handouts
- online resources
- art materials for posters
- various technology, including computers, iPads, digital graphic programs
- rubric for R.A.F.T assignment

Warm-up /Setting the Stage / The STEM Connection!

1. Opening question for discussion: “If you could time travel, when and where would you go?”

2. What examples of time travel and time machines do you already know? Discuss examples, show pictures/videos of several from pop culture and literature.

3. Find a picture of your town from the year 1905. Discuss the living conditions at the time, especially in regards to technology.

4. Create a large puzzle from a picture of Einstein from his later years. Students receive the pieces and must work together to put the pieces together. Once students are finished, make a list of associations with Einstein.

5. Discuss the components for E = mc2

6. Book preview- Students will receive their copies of books and preview the formatting and pictures.


Guided participation/practice: In order to prepare the class for independent reading, vocabulary acquisition and presentation, the reading of the first few chapters will be teacher directed. The teacher will read the chapter with the students using circumlocution to explain unknown vocabulary to make the text accessible to the students. To facilitate understanding, students will ask or answer content questions.

Once students have completed several chapters with the teacher, the remaining chapters of the book will be divided among partners. Students will identify four components in each chapter: relationships, conflicts, work/school, important life events. (See Appendix C) This information will be displayed
throughout the classroom and students will participate in a gallery walk to complete their understanding of the book.

Using the guidelines, students will in groups to create a poster illustrating Einstein’s life, values, and contributions to civilization. Students will choose their posters’ format, using traditional poster materials or digital applications. Groups will present posters to the class.

At the end of the unit, students will create a RAFT writing assignment, using the information from the book and presentations.

**Enabling activities:** Students will create a gallery walk based on the information they collect from their chapters.

**Application:** Students will be able to determine what events shaped Einstein’s life and world view and apply these ideas to their own world view.

**Extension activities:** Students can investigate one of Einstein’s theories and create a live demonstration to explain the theory.
Appendix A — Daily Lesson Plans

Tag 1 - Einstieg ins Thema

1. Opening question for discussion “If you could time travel, when and where would you go?”
2. What examples of time travel and time machines do you already know? Discuss examples, show pictures/videos of several from pop culture and literature. (See Appendix B - Die Zeitmaschinen)

3. Find a picture of your town from the year ~1905. Discuss the living conditions at the time, especially in regards to technology.

4. Create a large puzzle from a picture of Einstein from his later years. Students receive the pieces and must work together to put the pieces together. Once students are finished, make a list of associations with Einstein.

5. Discuss the components of E = mc2.

6. Book preview- Students will receive their copies of books and preview the formatting and pictures.

Tag 2 - Kapitel 1/Reading strategies/comprehension activities/Vocab activities
Pre-reading

Tag 3 - Kapitel 2 Reading strategies/comprehension activities/Vocab activities

Tag 4 - Kapitel 3 Reading strategies/comprehension activities/Vocab activities

Tag 5 - Kapitel 4 Reading strategies/comprehension activities/Vocab activities

Tag 6 - Kapitel 5 Reading strategies/comprehension activities/Vocab activities

Tag 7 - Kapitel 6 Reading strategies/comprehension activities/Vocab activities

Tag 8 - Partner lesen Kapitel 7-18 mit Appendix C

Tag 9 - Gallery Walk/ Alles besprechen

Tag 10 - Posters bearbeiten

Tag 11 - Posters bearbeiten

Tag 12 - Presentations

Tag 13 - RAFT assignment (Appendix D mit Rubric)
Die Zeitmaschinen aus der Pop-Kultur

Einstein wäre neidisch!
TIME MACHINES

THE FILM CHARACTER

THE POLICE BOX

THE HOT TUB

THE ELECTRICAL SPHERE

THE NECKLACE

THE PHONE BOOTH

THE CLASSIC

THE PORTAL

THE WAY BACK

THE GATE

shirtoid.com
Einstein und die Zeitmaschinen
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### Appendix C — Partnerarbeit beim Lesen

_Einstein und die Zeitmaschinen_   Namen: __________________________ und __________________________

Kapitel: #_________  
Title___________________________________________________________

<table>
<thead>
<tr>
<th>Schule/Ausbildung/Arbeit</th>
<th>Konflikte</th>
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<table>
<thead>
<tr>
<th>Beziehungen</th>
<th>Andere wichtige Ereignisse</th>
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**Schlüsselwörter von dem Kapitel:**
1. 
2. 
3. 
4. 
5. 

_Einstein und die Zeitmaschinen_  
Appendix C
### Appendix D — R.A.F.T. Writing Assignment

**Einstein und die Zeitmaschinen**

<table>
<thead>
<tr>
<th>Role of the Writing</th>
<th>Audience</th>
<th>Format</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1. Albert Einstein</td>
<td>Einstein's journal</td>
<td>journal entry</td>
<td>Choose a day from Einstein’s life and write a journal entry.</td>
</tr>
<tr>
<td>2. Einstein’s father</td>
<td>Einstein</td>
<td>letter</td>
<td>Write Einstein and tell him how you feel about his academic performance.</td>
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<tr>
<td>3. Director from</td>
<td>Einstein’s parents (in Italy)</td>
<td>letter</td>
<td>Explain why Einstein is leaving school before graduating.</td>
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<tr>
<td>Einstein’s school in Munich</td>
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<td></td>
<td></td>
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<tr>
<td>4. Journalist</td>
<td>the public</td>
<td>newspaper article</td>
<td>Write an article about Einstein winning the Nobel Prize.</td>
</tr>
<tr>
<td>5. Einstein’s violin</td>
<td>Einstein’s family</td>
<td>song lyrics</td>
<td>Explain why Einstein left you for scientific pursuits.</td>
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</table>

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Einstein und die Zeitmaschinen  
Appendix D