

SHOW TIME / CHAPTER 1 / SPACE WEEK

Thematic Learning Plan

Theme: Students will design their own planets, astronaut suits, and spacecraft, including accessories. They can work individually or collaboratively.

Interdisciplinary Approach: English, Mathematics, Science, Visual Arts, Music

Core Skills:

- Problem Solving:** Designing functional spacecraft and suits.
- Creativity and Innovation:** Creating a new planet, and designing artistic and functional products.
- Collaboration and Teamwork:** Completing the project through task division and collective effort.
- Communication Skills:** Presenting in English and expressing ideas.
- Mathematical Thinking:** Calculating physical dimensions using geometric shapes and measurements.

1. Defining the Theme and Introduction (Exploration Phase)

Objective: To introduce the space theme and increase students' curiosity and interest.

Disciplines: English, Mathematics, Science, Visual Arts, Music

Activities:

- Science:** Provide general information about space exploration, planetary structures, astronaut suits, and spacecraft. Discuss fundamental concepts such as space dynamics, planetary atmospheres, and the vacuum of space.
- Mathematics:** Introduce basic concepts of geometry and measurement relevant to space design (e.g., shapes of planets, dimensions of spacecraft).
- English:** Teach basic space-related vocabulary (e.g., "Solar System," "Astronaut," "Spacecraft") and create simple sentences about these terms.
- Visual Arts:** Discuss how artistic representations of space can be accurate and imaginative. Look at images of planets and spacecraft for inspiration.
- Music:** Listen to space-themed music to set the mood and inspire creativity.

Student Involvement:

- Brainstorm as a class about space and discuss what students know and want to learn.
- Start creative thinking with the question, "If you were to create a planet, what features would it have?"

2. Deepening Knowledge (Research and Discovery Phase)

Objective: To investigate space vehicles, astronaut suits, and planets in depth, and develop research skills.

Disciplines: English, Mathematics, Science, Visual Arts, Music

Activities:

- Science: Examine atmospheric properties, astronaut needs, and aerodynamic structures of spacecraft.
- Mathematics: Perform calculations for planet sizes, masses, and surface areas. Determine dimensions and shapes for spacecraft.
- English: Conduct research on space topics and write short descriptive texts in English (e.g., “My Planet’s Characteristics”).
- Visual Arts: Create detailed sketches of planets, astronaut suits, and spacecraft based on research findings.
- Music: Explore how music can reflect different aspects of space (e.g., different sounds for various planets).

Student Involvement:

- Investigate why astronaut suits are crucial and the function of each component.
- Determine the size, atmosphere, and gravity of their planets.
- Share findings and sketches with peers.

3. Product Design and Planning (Planning Phase)

Objective: To design their products and plan the materials and process needed.

Disciplines: English, Mathematics, Science, Visual Arts, Music

Activities:

- Visual Arts: Create detailed drawings and plans for planets, astronaut suits, and spacecraft. Discuss artistic and functional aspects of each design.
- Mathematics: Calculate geometric shapes, dimensions, and proportions needed for the designs. For example, determine the size and scale for the astronaut suit.
- Science: Plan how the designs will function in a space environment, considering durability and practical needs.
- English: Write descriptions of their designs in English, explaining features and functions.
- Music: Choose or create a musical piece that complements their design, such as a theme song for their planet or spacecraft.

Student Involvement:

- Plan how their designs will be functional and practical.
- Prepare a list of materials needed for building their models.
- Share their plans and receive feedback from peers.

4. Product Implementation (Production and Application Phase)

Objective: To bring the planned products to life, and develop collaboration and craftsmanship skills.

Disciplines: English, Mathematics, Science, Visual Arts, Music

Activities:

- Visual Arts: Build models of planets, astronaut suits, and spacecraft using materials like clay, cardboard, and fabric.
- Mathematics: Measure and cut materials according to the calculated dimensions. Ensure proportions and geometric accuracy in their designs.
- Science: Discuss and test how well their designs perform under simulated space conditions (e.g., weight of materials, durability).
- English: Document the building process and describe each step in English.
- Music: Play space-themed music or create sound effects to accompany the building process and enhance the atmosphere.

Student Involvement:

- Individually or in groups, use materials to create their models.
- Collaborate and assist each other, ensuring all parts are completed as planned.

5. Presentation and Sharing (Showcase Phase)

Objective: To present and share their products with each other.

Disciplines: English, Mathematics, Science, Visual Arts, Music

Activities:

- English: Present their products in English using sentences like “My Planet is called... It has an atmosphere made of...” Include explanations of features and functions.
- Visual Arts: Display models of planets, astronaut suits, and spacecraft in the classroom.
- Mathematics: Explain any mathematical calculations related to the dimensions and proportions of their designs.
- Science: Discuss the functionality of their designs and how they would perform in a real space environment.
- Music: Use space-themed music or create a soundscape that reflects their projects during the presentations.

Student Involvement:

- Each group presents their products to classmates and answers questions.
- Display all projects in a gallery-style setup for peer review

6. Evaluation and Feedback (Evaluation Phase)

Objective: To evaluate student work and provide feedback.

Disciplines: English, Mathematics, Science, Visual Arts

Activities:

- Science: Evaluate the scientific accuracy and functionality of each product. Discuss how well the designs adapt to space conditions.
 - Mathematics: Assess the accuracy of measurements and calculations. Provide feedback on geometric and proportional aspects.
 - English: Review the clarity and effectiveness of the presentations. Provide feedback on language use and expression.
 - Visual Arts: Evaluate the artistic quality and creativity of the designs.
- Student Involvement:
- Reflect on their own work and the feedback received.
 - Discuss how their designs could be improved based on evaluations.

7. Reflection and Conclusion (Reflection Phase)

Objective: To reflect on the process and understand what was learned.

Disciplines: English, Visual Arts

Activities:

- English: Prepare a short report or presentation in English, explaining the design process, challenges faced, and what was learned.
 - Visual Arts: Reflect on the artistic process and how their designs evolved.
- Student Involvement:
- Write or discuss reflections on their learning experience.
 - Share insights and thoughts on the overall project and its outcomes.

Conclusion:

By engaging in this thematic learning plan inspired by Axebug Space Adventure, students have had the opportunity to apply their creativity and problem-solving skills to design their own planets, spacesuits, and spacecraft. Through this interdisciplinary approach, they have not only explored the scientific and mathematical principles behind space travel but also enhanced their artistic and communicative abilities. The adventure of creating their own space-themed projects has allowed them to connect with the fascinating world of Axebug Space Adventure, making their learning experience both enjoyable and deeply meaningful.

This plan integrates English, Mathematics, Science, Visual Arts, and Music, encouraging students to apply interdisciplinary skills while fostering creativity, teamwork, and effective communication.