



STEAM &Sports

Lesson 10 - Are You Up for Being the “Exercise Leader” of Your Family?

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Are You Up for Being the “Exercise Leader” of Your Family?

Grade Level

Fifth Grade

Lesson Overview

This lesson aims to empower students to become leaders in promoting healthy lifestyles within their families. Through data collection, analysis, and presentation, students will learn to apply STEAM concepts in real-world scenarios. The lesson encourages collaboration, critical thinking, and creativity.

Learning objectives and Outcomes

Upon completion of this lesson, students will be able to:

- 1. Understand the components of a healthy lifestyle, including nutrition, exercise, and mental well-being.
- 2. Create and conduct a survey to gather data on family health habits.
- 3. Analyze survey data using basic algebra and statistical methods.
- 4. Organize and represent data through charts, tables, and graphs.
- 5. Develop a plan to improve family health habits based on data analysis.
- 6. Present findings and recommendations using digital tools and creative expression.



Week 1: Introduction and Data Collection

Day 1: Introduction to Healthy Lifestyles

- Activity: Discuss what constitutes a healthy lifestyle. Use images and videos to illustrate key concepts.
- Outcome: Students will identify key elements of a healthy lifestyle.

Day 2: Designing a Health Survey

- Activity: Work in groups to design a survey targeting family health habits. Discuss potential questions and data points.
- Outcome: Students will draft survey questions focused on diet, exercise, and daily routines.

Day 3: Conducting the Survey

- Activity: Distribute surveys to family members. Provide guidelines on how to collect and record responses.
- Outcome: Students will collect data from at least three family members.

Day 4: Data Collection and Initial Analysis

- Activity: Begin organizing collected data into categories. Use simple tables to start analysis.
- Outcome: Students will categorize data and prepare for detailed analysis.

Day 5: Introduction to Data Representation

- Activity: Introduction to creating charts and graphs using software.
- Outcome: Students will create basic bar graphs or pie charts from their data.

Week 2: Data Analysis and Implementation

Day 1: Advanced Data Analysis

- Activity: Use software to perform deeper analysis of survey data. Discuss findings in groups.
- Outcome: Students will identify patterns and insights in family health habits.

Day 2: Creating a Health Improvement Plan

- Activity: Develop a plan to improve family health based on data. Include actionable steps and goals.
- Outcome: Students will create a personalized health improvement plan for their family.

Day 3: Preparing Presentations

- Activity: Use digital tools to prepare a presentation of findings and recommendations.
- Outcome: Students will develop a multimedia presentation using slides and graphics.

Day 4: Presentation Day

- Activity: Present health plans to the class. Provide feedback and discuss potential challenges in implementation.

- Outcome: Students will gain experience in public speaking and receive peer feedback.

Day 5: Reflection and Next Steps

- Activity: Reflect on the project. Discuss what was learned and how to apply it in real life.
- Outcome: Students will write a short reflection on their experience as "exercicity leaders."

Material needed

- Internet connection
- Computers or tablets
- Survey templates
- Software for data analysis and presentation (e.g., Excel, Google Sheets, PowerPoint)

Assessment

- Participation in group activities
- Quality of survey and data analysis
- Creativity and feasibility of the health improvement plan
- Effectiveness of the presentation and reflection essay

Methodology

- Project-Based Learning
- Cooperative Learning (Kagan Structures)
- Integration of STEAM concepts

This lesson plan aligns with Common Core standards for Mathematics and English Language Arts, promoting data analysis, critical thinking, and effective communication.

Lesson Developer

Created by: Miguel Corbí (UBU), Sandra Rodríguez (UBU), Nants Schilstra (Learning hub Friesland), Alejandra Rusjakova (Jan Amos Komenski), Marija Trivonović (Branko Radičević) and Adriana Mihalić Sebeya (Bakar).

Tips for age group differentiation (for older/younger kids than indicated in the lesson)

For younger students (9–10 years): Use picture-based surveys and simplify the number of questions to 3–4 per topic. Help them draw conclusions using visuals.

For older students (13+): Allow for more complex survey tools (e.g., Google Forms), include open-ended responses, and compare family data with health recommendations.

To which SDG(s) does the lesson relate most



SDG 3: Good Health and Well-being

Promotes healthier lifestyle habits at home.



SDG 5: Gender Equality

Empowers all students to take leadership regardless of gender or family role

What Inclusivity and Accessibility measures can or should the teacher take for this lesson

Encourage students to present findings using their preferred medium (posters, videos, presentations).

Make survey collection adaptable to different family structures.

Provide guidance for students with less digital access by offering paper alternatives.

Offer scaffolded reflection prompts for students who may struggle with writing.

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