

## Asturian Bowling

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### Main Theme

Sports: Bowling

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### Objectives and Tasks

#### Learning Objectives

1. Understand and value traditional sports and games, as well as develop programming skills and spatial orientation.

#### Teaching Tasks

Students will learn about the traditional sport of bowling, program the robot considering variables such as space, time, and direction.

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### Interdisciplinary Relations

#### 1. Physical Education

- **Motor Coordination:** Development of motor skills, aiming, and body control.

- **Teamwork and Cohabitation:** Reinforcement of values like respect, cooperation, and fair play.
- **Mathematical Competence:** Counting points, calculating distances, and establishing strategies based on probabilities.

## 2. Mathematics

- **Measurement:** Calculating distances between the bowling pins and the player or different positions.
- **Calculation:** Quickly adding points, analyzing scores, and solving game-related problems.
- **Geometry:** Understanding angles, trajectories, and movements during throws.

## 3. Artistic Education

- **Design and Creation:** Making bowling pins or drawing game scenarios.
- **Cultural Heritage:** Artistic appreciation of bowling as an expression of local identity.

## 4. Social Studies

- **History and Geography:** Contextualizing bowling as part of cultural heritage and analyzing its origins in different regions.
- **Culture and Traditions:** Reflecting on the importance of preserving traditional games in modern society.

## 5. Natural Sciences

- **Materials and Physics:** Analyzing the properties of materials used for bowling pins and their impact on the game (wood, weight, friction).
- **Force and Motion:** Exploring physical principles like inertia, applied force, and energy in the throw.

## 6. Civic and Ethical Education

- **Respect and Tradition:** Fostering respect for traditions and cultural heritage.
- **Cohabitation:** Promoting respect for game rules and equal participation.

## 7. Language and Literature

- **Research and Documentation:** Reading and writing explanatory texts about the history and rules of the game.
- **Oral Communication:** Debates or presentations about the cultural importance of bowling.

## 8. Digital Competence

- **Programming:** Using applications to program the robot so it performs the bowling throw.

## Resources and Materials Needed

### Physical Resources

- Computers, robots, bowling pins, and a ball.

### Digital Resources

- Application for programming.

## Session Structure

### Introduction (5 minutes)

- Explanation of the bowling sport and the session in general.

### Development (30 minutes)

- Explanation on how to create a program.
- Time for programming and playing bowling.

### Closure (10 minutes)

- Scoring recap and final reflection.

## Expected Outcomes

### Key Learnings

- Motor competence, mathematical competence, values education, social and civic competence, cognitive competence, cultural competence, and scientific competence.

### Final Products

- Design the game (creativity), calculate scores (mathematics), program (digital competence), analyze bowling movement (physics), and reflect on the game as cultural heritage (social studies).