

An abstract painting with a complex, layered composition. It features a mix of warm and cool colors, including deep blues, purples, yellows, and reds. The brushstrokes are visible and expressive, creating a sense of movement and depth. The overall effect is one of a rich, textured surface.

**(ENG) May the force be with you**

**Introduction**

**Step 1 - Motivational Stage**

**Step 2 - Investigational Stage**

**Step 3 - Consolidation Stage**

# Introduction

---



---

#Online activity #In-class activity #Artwork #Gamified learning

---

The pupils will learn about Italian Futurism and how it tried to depict movement, speed and technological development. They will then learn how to recognize and draw main forces, like friction, mass, pull and ground force. They will then discuss and practice drawing these forces on a couple of caricatures drawn by a political satirist before the Second World War.

## Learning Objectives

☐

Understand concepts like: friction, drag and equilibrium of forces

☐

Analyse and draw the above forces

## ACTIVITY DETAILS

### Activity Details

**Connection of the activity with Art** —

Italian Futurism, pre-War caricature



**Link to local, national School Curriculum** —

Forces/Drawing forces



### Equipment required —

- a pencil,
- a ruler.



### Duration of activity —

45 minutes



### Sources —

**The Slow Mo Guys:** <https://www.youtube.com/user/theslowmoguyss/featured>

**Hinko Smrekar Microsite:** <https://smrekar.ng-slo.si/en/>

**Downloadable resources**

Work sheet 1: Drawing Forces, adapted from the drawings by Hinko Smrekar, 2022, courtesy of the National Gallery of Slovenia

**Photo credits:**

Pic. 1

Giacomo Balla (1871-1958)

Dynamism of a Dog on a Leash, 1912

oil, canvas, 89.8 x 109.8 cm

Albright-Knox\_Art Gallery

Public domain

Pic. 2

Umberto\_Boccioni

Dynamism of a Cyclist, 1913

oil, canvas, 70 x 95 cm

Gianni Mattioli Collection, on long-term loan to the Peggy Guggenheim Collection, Venice

Public domain

## Step 1 - Motivational Stage

---



Play for you pupils one of the videos of the Slow Mo Youtube show.





Instruct pupils to observe how we perceive physical forces in the video (movement, interaction with other objects, action/reaction, gravity). The point is not to name all of the forces, but to practice observing them.

## Step 2 - Investigational Stage

---



### STUDENTS' TASKS

1

#### Task 1

Show your pupils some works by Italian Futurists







Giacomo Balla, Dynamism of a Dog on a Leash, 1912, Albright-Knox\_Art Gallery



Umberto\_Boccioni, Dynamism of a Cyclist, 1913, Gianni Mattioli Collection

Explain to the class that in the beginning of the 20th century, the world was becoming unrecognisable. Population of Europe was rapidly expanding, as were the cities and factories that completely changed the look, the cityscape and even the smell of places. Most people were not happy with the changes, but not the **Futurists**.

**i** They celebrated speed, technology, skyscrapers, war, the smell of gasoline.

The Futurists were obsessed with movement - it symbolised progress, dynamism, life itself. In their work they tried to capture the forces and the movements of the depicted object, animal or a person. That is why in the above pictures, you see multiple legs, shoes, tails, the misshaped bicyclist - they are all exerting force or being shaped by forces while they are moving. The inspiration for the pictures came from early films and sequence photography.

## Task 2

Explain to your pupils how to recognize forces that act when bodies touch and the forces acting at a distance, how to describe friction and drag force and equilibrium of forces.

Use your own examples to illustrate and practice.

---

3

## Task 3

Show your pupils the worksheet.



**Drawing\_forces.pdf**

4.3 MB



What they see are adapted caricatures by a political satirist Hinko Smrekar (1883-1942). He, too, observed the world around it, but depicted the fall-out of progress, which gave humans more and more tools to do harm. The Futurists' visions were later used by totalitarians to advocate a radically different world order. Smrekar, who fought totalitarians through his drawings, was in the end executed by Italian Fascist when they occupied his hometown of Ljubljana. You can learn more about him from the microsite (link below).

## Step 3 - Consolidation Stage

---



Pupils watch another video from the Slow Mo Guys and comment on the forces at play:





---

**End of the activity**

EXIT