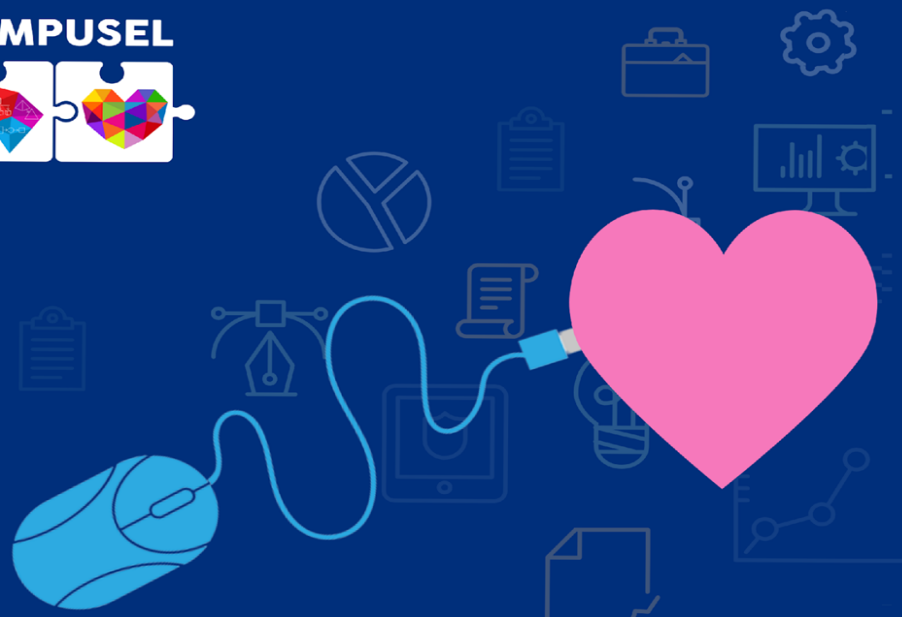
COMPUSEL



COMPUSEL

Computational Thinking in Enhancing Primary Students' Social-Emotional Learning Skills

# COMPUSEL

An ERASMUS+ KA2 PROJECT

Co-funded by the Erasmus+ Programme of the European Union

TÜRKİYE ULUSAL AJANSI
TURKISH NATIONAL AGENCY

# PARTNERS

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University of Evora/Portugal

University of Lodz/Poland

University of Bucharest/Romania

Mellis Educational Technologies/Türkiye

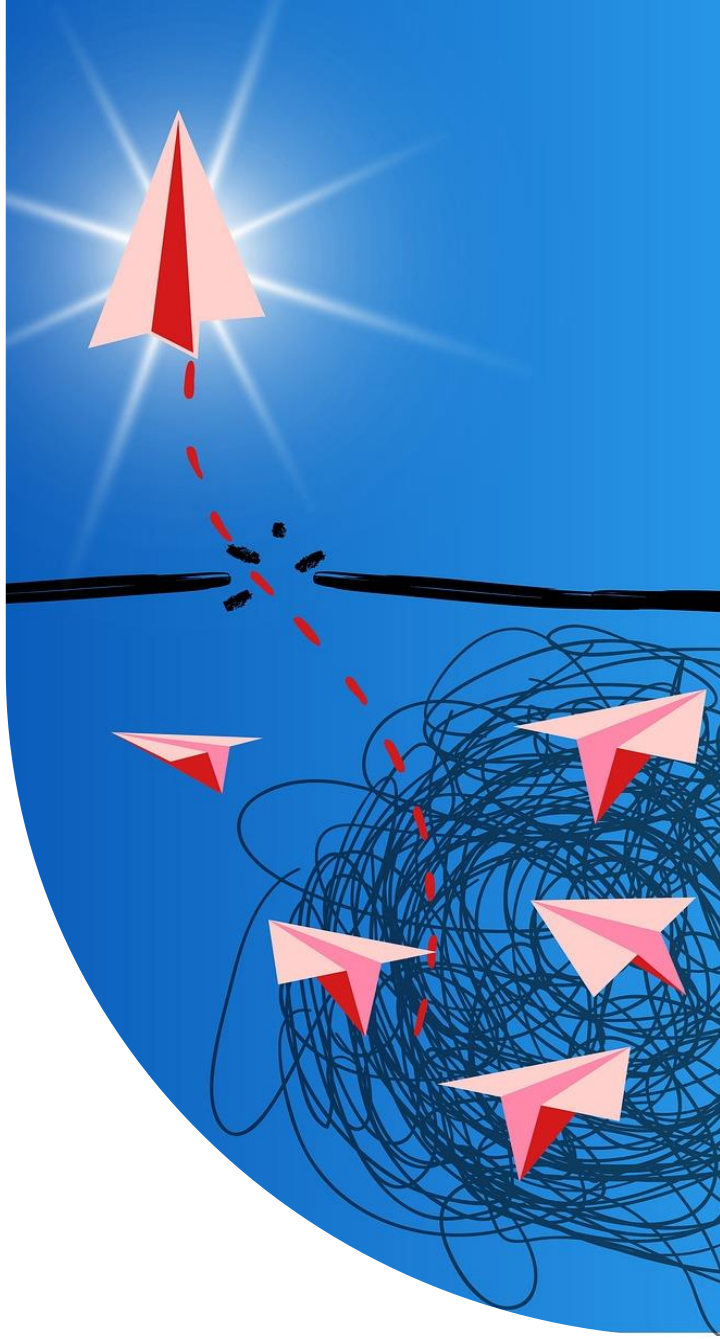
Social Cooperative Enterprise of Cyclades /Greece

# ABOUT COMPUSEL

# OUR AIM

With this project, we aim to develop a social-emotional learning curriculum to improve the social-emotional learning skills of elementary school students.

Its target audience is Elementary Teachers and Elementary School Students.



# SOCIAL & EMOTIONAL LEARNIN

Social-emotional learning describes the process through which individuals acquire essential knowledge, skills, and attitudes necessary for identifying and regulating their emotions, achieving their goals, enhancing their empathy, fostering positive relationships, and making responsible and compassionate decisions in both the short and long term (CASEL, 2020).

# SOCIAL & EMOTIONAL LEARNIN

Self Awareness

Self Management

Social Awareness

Relationship Skills

Responsible Decision Making

# SOCIAL & EMOTIONAL LEARNIN
# IN CLASSROOMS

Maintaining Collaborative Relationships

Making Responsible Decisions

Managing Strong Emotions

Effective Relationship with Peers and Teachers

Solving Problems Effectively

Recognizing Their Own and Others' Emotions

# SOCIAL & EMOTIONAL LEARNING IN EUROPE

In Europe, many children of the school-age have social-emotional problems.

Guidance Provided by International Authorities:

UNESCO

UNICEF

OECD

WHO

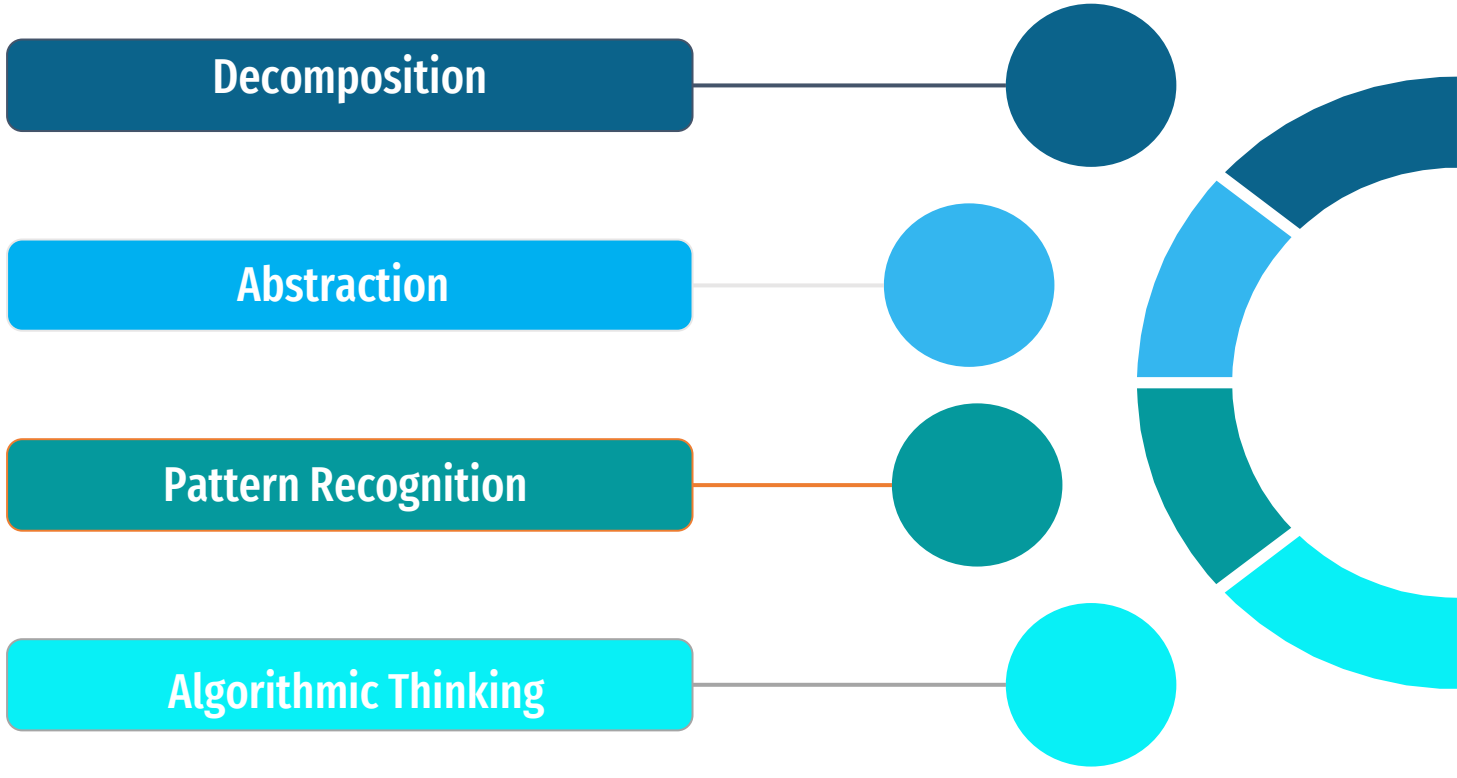
# SOCIAL & EMOTIONAL LEARNING IMPLEMENTATION APPROACHES ACROSS EUROPEAN CURRICULA

One is adopting existing interventions developed in other countries

Another one is developing and implementing their social-emotional interventions

# COMPUTATIONAL THINKING

Computational thinking involves dividing and solving a problem into simple steps that even a computer can understand (Lu & Fletcher, 2009). Meaning is should be structured and clearly defined.



# COMPUTATIONAL THINKING

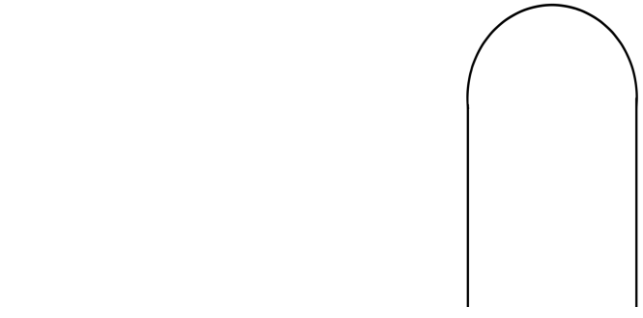
## Decomposition

Breaking down a complex problem into small parts.

1- The prime factorization of 54: 2, 3, 3, 3 (multiply the numbers to find 54)

2- A cube has six identical square faces, all meeting at right angles.

3- Cleaning the classroom (Sorting things, distributing tasks among classmates)



# COMPUTATIONAL THINKING

## Abstraction

Abstraction; focusing on essential details, ignoring unncessary ones

1- Navigation: Ask it to take the easiest way, fastest way, or shortest way.

2- Making omelette, you focus on the egg, oil, salt, and frying pan in the kitchen.

3- Our brain is very good at abstraction.

- Watch the video and try to find the blue ball is under which cup.

# COMPUTATIONAL THINKING

Pattern recognition: Ability to notice similarities and repeating patterns in things we see, hear, or experience.

1- A mix of socks, you identify the pairs by their patterns.

2- A cat, once you see a couple of cats, however different the other cats you see, you recognise them as cats.

3- Language: each Word has its own letter pattern and structure, so we can understand a langauge when we are aware of the words' patterns.

Pattern Recognition

- Watch the video and see the patterns in the dance.

# COMPUTATIONAL THINKING

Algorithmic thinking: planning a «sequence of steps» to «solve a problem» in «a clear and organized way»

1- Folding a shirt step by step (and there are always different ways)

2- Setting a table, getting dressed, baking cookies all have steps.

Algorithmic Thinking

- Watch the video to see how a father teaches algorithmic thinking to his kids.

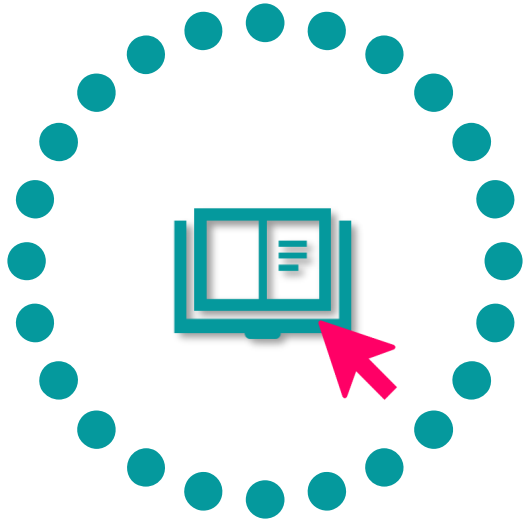

NOW I'VE SEEN EVERYTHING

# INTEGRATING COMPUTATIONAL THINKING & SOCIAL-EMOTIONAL LEARNING

Computational thinking requires students to be mindful and intentional throughout the problem-solving process and builds essential attitudes like:

Embracing ambiguity with confidence.
Persisting through iteration and experimentation.
Practicing teamwork.
Leading learning with inquiry.
Situating oneself as a lifelong learner.

# OUTPUTS

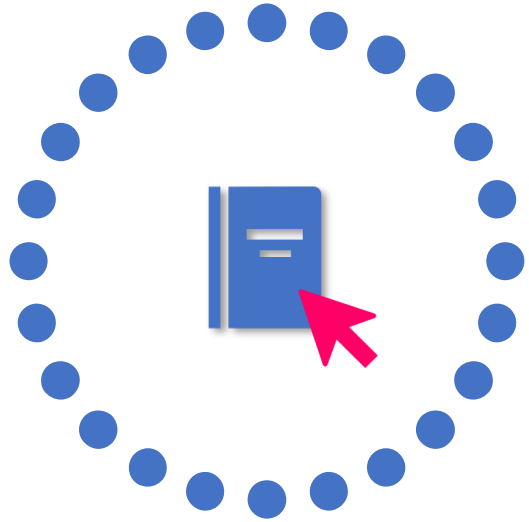


## Curriculum

Literature reviews and workshops have been conducted as a ground work for the currciulum preparation.

## Digital Stories

Digital stories have been prepared in the form of 2D cartoon.



## Teacher's Guide

Ongoing process of the guidebook for the COMPUSEL learning model

# SCHOOL EDUCATION COURSE CURRICULUM FOR PRIMARY SCHOOL


Consists of 5 modules:

Self Awareness

Self Management

Social Awareness

Relationship Skills

Responsible Decision Making

# MODULE STRUCTURE

## MODULE 5

### RESPONSIBLE DECISION-MAKING

SESSION 1

*OBJECTIVES*

The students will be able to:

- explain responsible decision-making principles
- analyze different options/alternatives to decide responsibly when faced with an issue
- realize that the decisions made responsibly have positive and negative consequences
- realize that the decisions made responsibly have the short- and long-term impacts
- understand the importance of responsible decision-making in terms of safety
- understand the importance of responsible decision-making in terms of social life
- be eager to make responsible decisions
- evaluate the appropriateness of a decision in terms of responsible decision-making principles
- make responsible decisions in situations encountered

*TITLES & CONTENT*

Importance of responsible decision making
Bullying in a classroom
Examples of real-life experiences
Considering ethical standards, social norms, and safety in making decisions
Making appropriate choices in life

# MODULE STRUCTURE

*TEACHING/LEARNING PROCESS*

Situation

The students watch a digital story about a student who has to decide about his friends who bully a new student in the class and ask him to be on their side.

Introduction

*Drama Activity*- Switching roles

Students will work in pairs. While one of them is assigned the role of the student who defends the new student in the story; the other is assigned the role of a student who bullies. Then, the students are required to switch roles.

Decomposition

*Class Discussion*- Leading students to decompose the problem through questions such as:

What is the problem in this story?

Who is/are causing the problem?

How students in the classroom behaved toward the new student?

Who opposed them?

# MODULE STRUCTURE

## Abstraction

***Module 5 - Worksheet 1***-Students will be required to complete the "Hourglass Activity". Accordingly, they will identify the behaviors they will focus on to solve the problem encountered in the story.

## Pattern Recognition

*Examples of Real-Life Experiences*- Students will be asked to share a similar unpleasant experience. The teacher encourages appropriate stories to discuss in the classroom. Students will be required to explain the situation, the way they made their decisions and the consequences of their decisions. The similarities and differences between the experiences the students had, and the digital story will also be indicated.

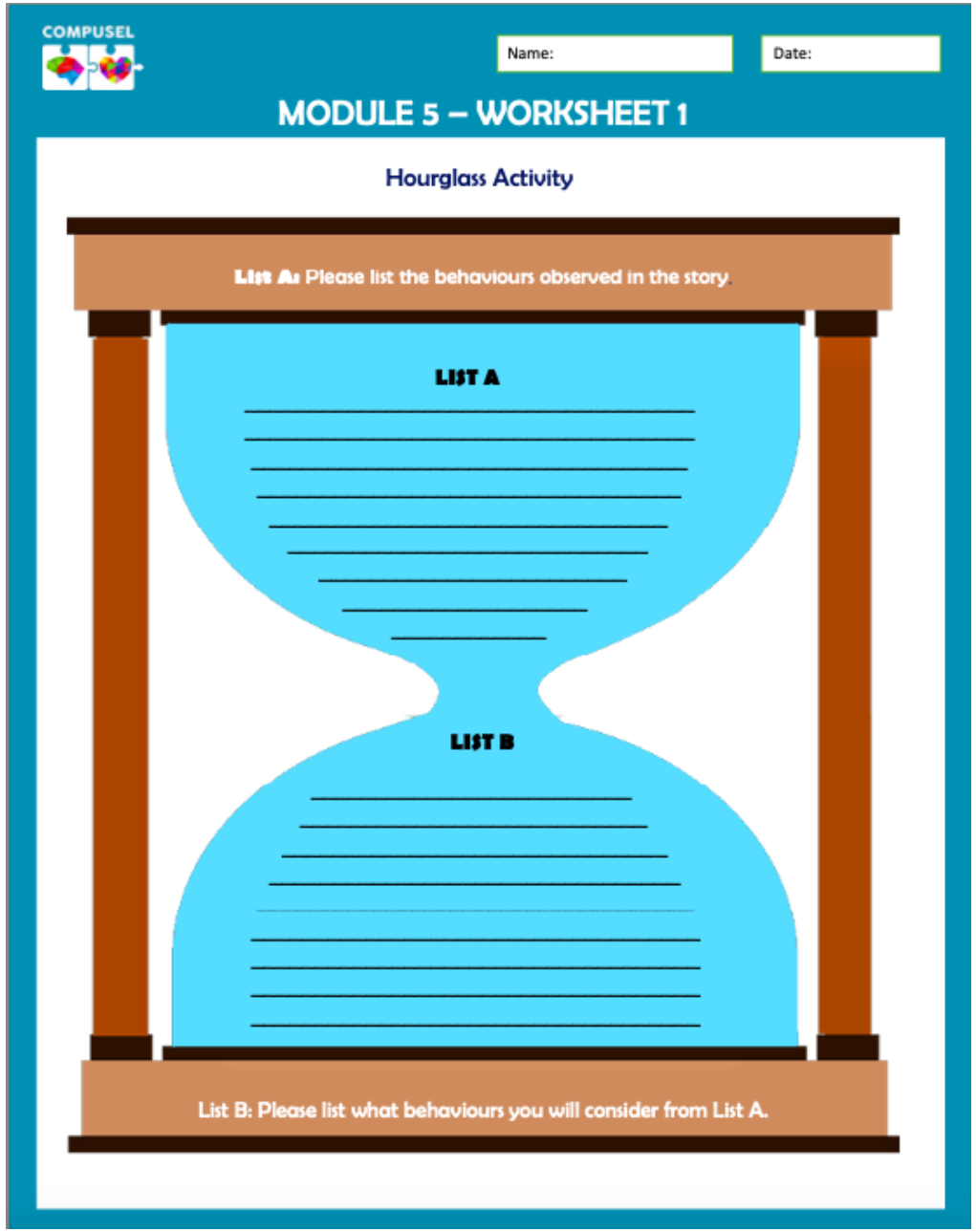
## Algorithmic Thinking

*Worksheet 2*- Students will be required to complete the worksheet to explain how they would overcome the challenges of the story they watched step by step and make a responsible decision.

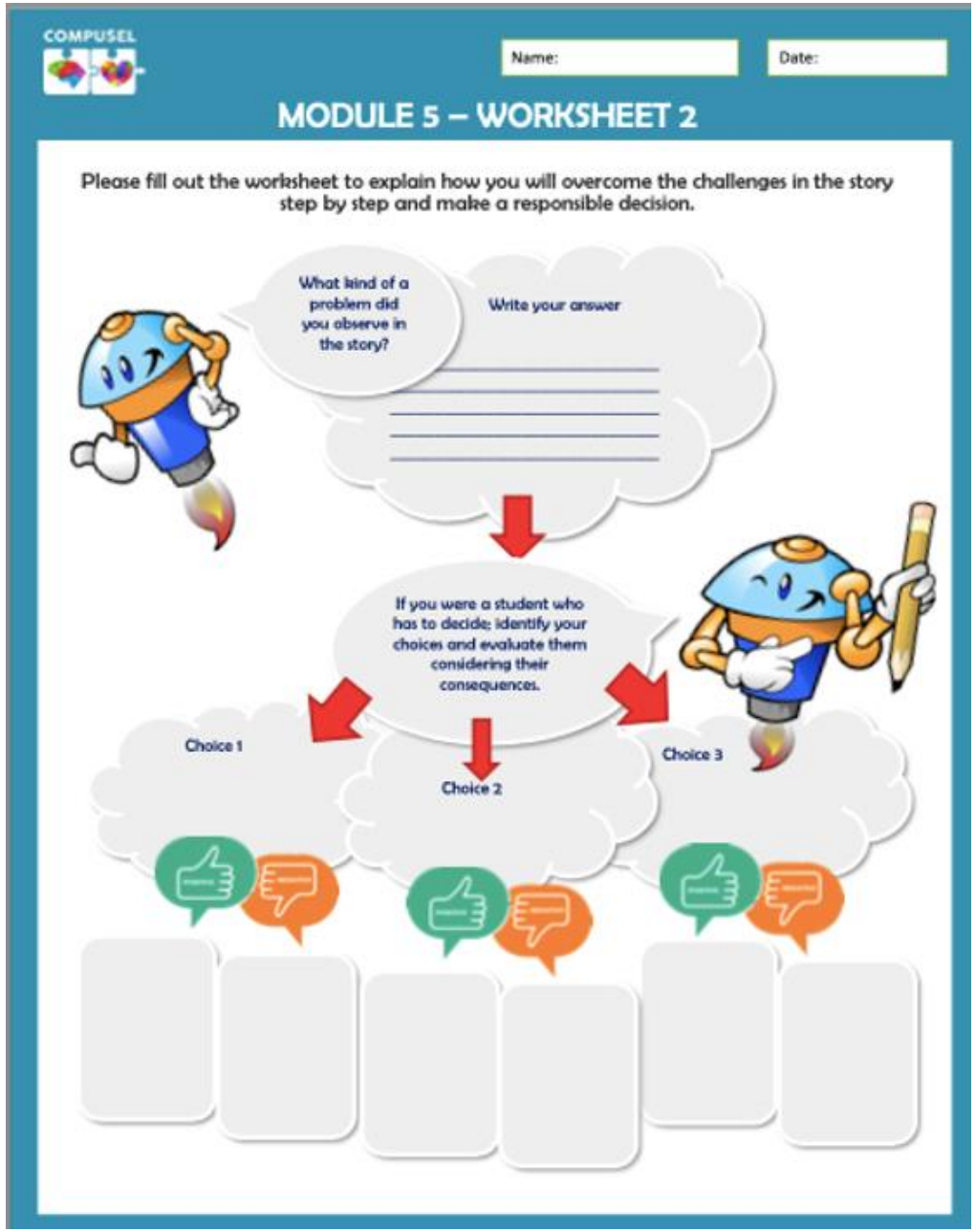
## Closure

*Class Discussion*- Students will have an opportunity to talk about their decisions regarding the digital story they watched. They will indicate the values that influence their decision. The positive and negative consequences of decisions will also be discussed.

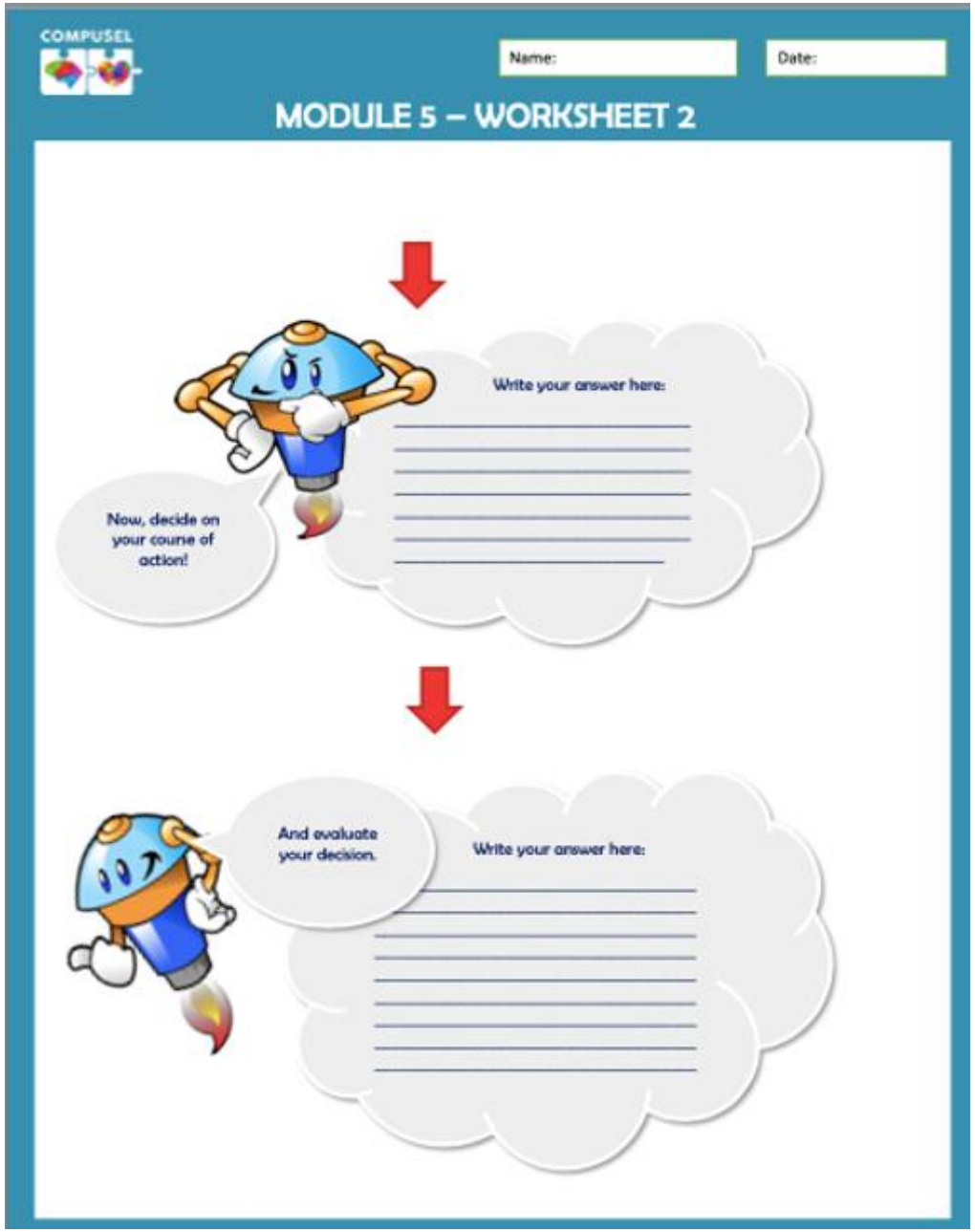
# WORKSHEET 1

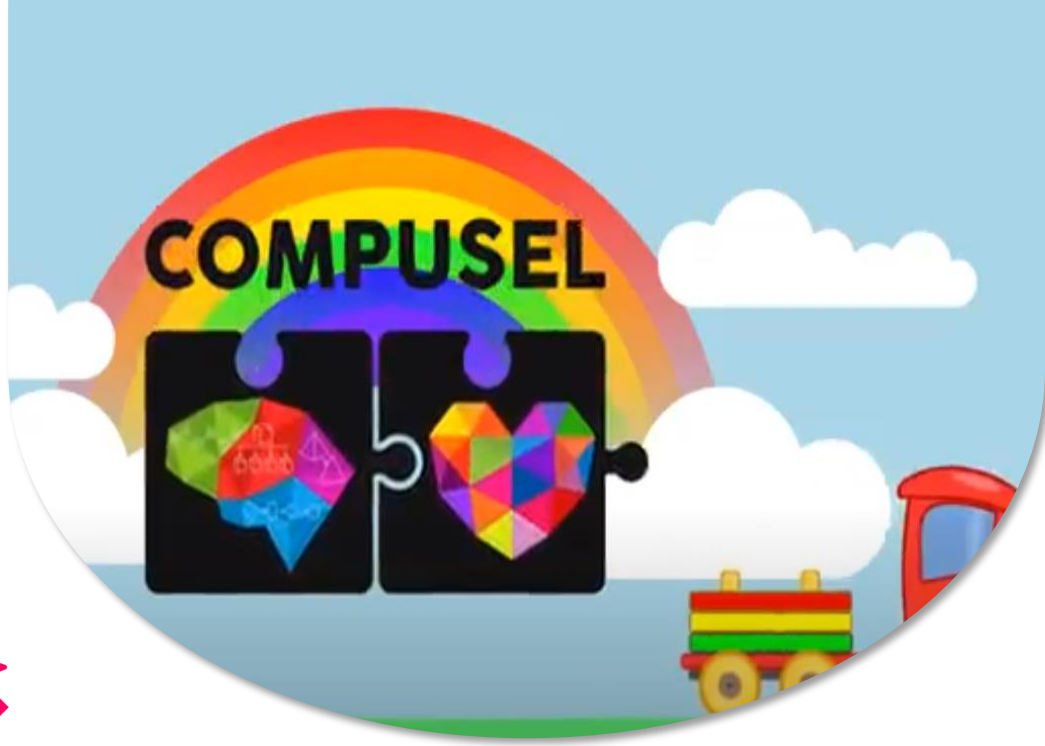

COMPUSEL
Name:
Date:
MODULE 5 – WORKSHEET 1
Hourglass Activity
List A: Please list the behaviours observed in the story.
LIST A
LIST B
List B: Please list what behaviours you will consider from List A.

# WORKSHEET 2


COMPUSEL
Name:
Date:
MODULE 5 – WORKSHEET 2
Please fill out the worksheet to explain how you will overcome the challenges in the story step by step and make a responsible decision.
What kind of a problem did you observe in the story?
Write your answer
If you were a student who has to decide; identify your choices and evaluate them considering their consequences.
Choice 1
Choice 2
Choice 3

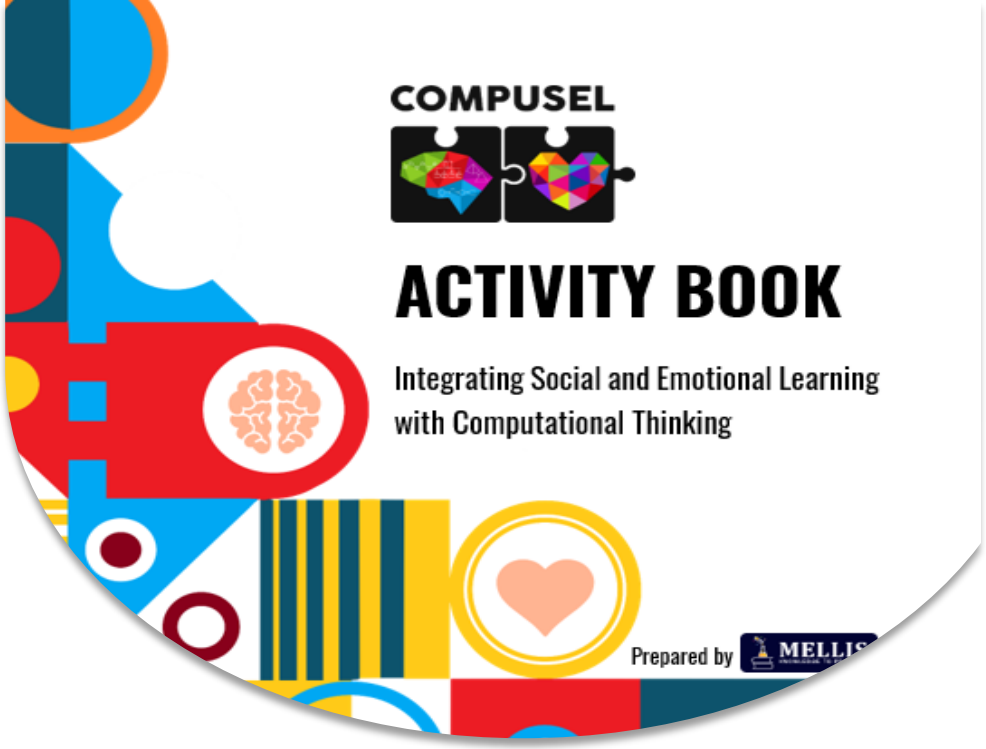
# WORKSHEET 3


COMPUSEL
Name:
Date:
MODULE 5 – WORKSHEET 2
Write your answer here:
Now, decide on your course of action!
And evaluate your decision.
Write your answer here:




# DIGITAL STORIES






# ACTIVITY BOOK

Introduces 20 engaging activities designed to integrate Computational Thinking (CT) dimensions into Social and Emotional Learning (SEL) skills.

# ACTIVITY BOOK LEARNING ACTIVITY STRUCTURE

## Activity Identification

- Activity Number
- Targetted SEL skill

## Engagement

- Problem Situation
- Storification of the Problem Situation
- Reexploration of the problem

## Problem Solving Process through CT

- Decomposition
- Abstraction
- Pattern Recognition
- Algorithmic Thinking

## Learning Technique

- The Most Efficient Technique/s Proposed
- Suggestions to Teachers

## Evaluation

- Students' Future Experiences
- Evaluation of Results

# FOLLOW US

COMPUSEL

# THANK YOU