



# Training Module 3

# Inclusive STEAM model for change of

# environmental behaviour

















## Unit 1



# A three-step pedagogical model

















## **Triadic Network**



In order to produce a coherent pedagogic framework

#### **METHODS**

Socio-scientific Inquiry based learning; inquiry in social science; engineering design; design thinking; . .

#### **THEORIES**

**Epistemology:** Science and Technology Studies perspectives.

Psychology: Vygostky's socio-cultural theory

Theory of behaviour change: Social

**Practice Theory** 

**Didactics:** STEAM transdisciplinary

integration



Raising awareness among children and young people of environmental problems related to plastics, leading to a transformation in the consumption and choices we make, both for them and for the adults around them.

















### PEDAGOGICAL MODEL



For defining the **pedagogical classroom model** for changing **environmental behaviour within inclusive school settings,** we are going to apply the **Social Practice Theory and McGuire's proposal** 

This theoretical framework defines a coherent pedagogical model, characterized by three steps:

Problematization Understanding, Action.

















## **PROBLEMATIZE**



- Initial problems should be as authentic as possible to each student;
- have different possible solutions,
- involve different "points of view" for the search of solutions,
- be at once recognizable to children,
- children's contribution to the problem should also be recognizable,
- cooperative action should be mobilized.

(Marshall 2015 and McGuire)

















## **UNDERSTANDING**



Use of active, collaborative, and learner-centred methodologies that enable them to understand the current environmental situation and to acquire new knowledge, skills, and meanings through social interactions (peers, teachers, society).

Facilitate **critical reflection**, helping students to understand how plastic objects shape our daily life; and the ways to reduce/replace/recycle plastics, through the knowledge of different materials and the development of new skills and meanings.



















The solutions to the problems found by the children should be applicable, enabling students to become agents of change and empowerment in their environment.

















Diverse inquiries (natural and social sciences); engineering design; design thinking for understanding the current environmental situation and acquiring new knowledge, new skills, new meanings

different possible solutions, involve different "points of view" in the search for solutions, be recognizable to children, also making the children's own contribution to problem solving recognizable, and mobilizing cooperative action

TAKING AN ACTIVE ROLE AS AN AGENT OF CHANGE AND EMPOWERMENT IN THEIR ENTOURAGE.





















## **EXAMPLES OF PRACTICES**



A plasticized planet

Detectives for sustainability



















# Work in group



Discuss the possibilities and difficulties they would find for applying the model in their classrooms.













