

# TECHNOLOGICAL DESIGN PROCESS IN SECONDARY SCHOOL

## Identifying and outlining the problem



- Need to be fulfilled
- Object to be improved



## Suggest a solution

- Initial ideas
  - I explain in my own words what I know about the need to be fulfilled or the object to be improved (constraints and operation).
- Solutions trail
  - I imagine my prototype... (words or sketch).
  - I imagine the operating principle (words or sketch).

INITIAL IDEAS, TENTATIVE EXPLANATION AND HYPOTHESIS

## Plan and produce a prototype

### Materials

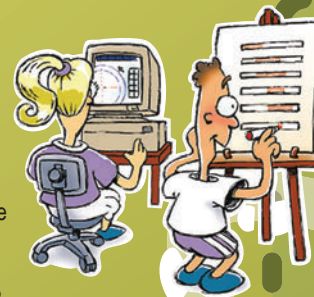
- I familiarise myself with the available materials, equipment and tools.

### Development

- I choose what will prove useful to me to produce my prototype.
- What is my action plan?
  - What are the main parts to be made?
  - In what order will the parts be assembled?
  - What are the appropriate techniques?
  - What precautions do I need to take?
  - What should I note and when?

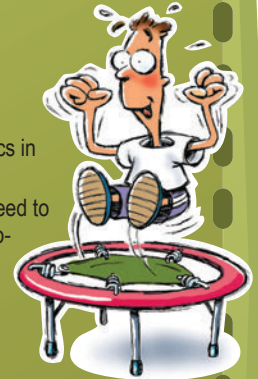
### Action

- I produce the prototype according to the established plan.
- I adjust the plan as needed and note the adjustments.
- I perform tests to check the prototype with regard to the established specifications booklet.



## Working out explanations and concluding

- I evaluate my prototype with regard to all the characteristics in the specifications booklet.
- I suggest a solution for the need to be fulfilled based on my prototype and on my knowledge.
- What should I communicate about the proposed solution (my prototype) and how do I communicate it effectively?
- Did I use the appropriate terms and respect the rules and conventions to express my ideas?
- What do I take away from this process?



PLANNING AND CARRYING OUT

OUTCOME

SIGNIFICANT CONTEXT