

Unit 1.- Algorithms

Algorithm: series of ordered steps or instructions to perform a task. Cooking recipe.

Program: an algorithm written in an specific language that a machine can understand for developing a task.

Project approach: method that technology uses for dealing with the solution of a problem. It has several steps or stages:

- problem: what do we need or we need to solve?
- search for information: we look for information to solve the problem, or analyze similar product that meet the need
- possible solutions: we assess different solutions for the problem
- chosen: solution we choose the best solution
- design: drawings and diagrams
- planning: what do we need: materials, techniques, tools, workers
- construction: we build and assemble the object
- checking: (solved problem?) we check if the product meet our needs
- evaluation: we present the project to other people
- final report: drawings, planning, budget, assessment.

Algorithms and programs are represented by flow charts or flow diagrams. We use these symbols to represent the steps in a flow chart:



Start and end



process



input/output of information



decision

Types of algorithms:

sequential: its steps are executed one after the other, ie traffic lights.

Selective or if : it depends on whether or not a condition is met, ie division

Repeating or iterative: its instructions are repeated several times, ie a clock.