

Supporting the Professiona Learning of School Leaders and Teachers

# LCCS NW2 Session 6

ALT4: Design and Create







#### By the end of this session...

Participants will be enabled to...

- enhance their understanding of the Design stage through considering representations and design tools, e.g. Flowcharts
- enhance their understanding of the Create stage of the Design Process



## The Design Process

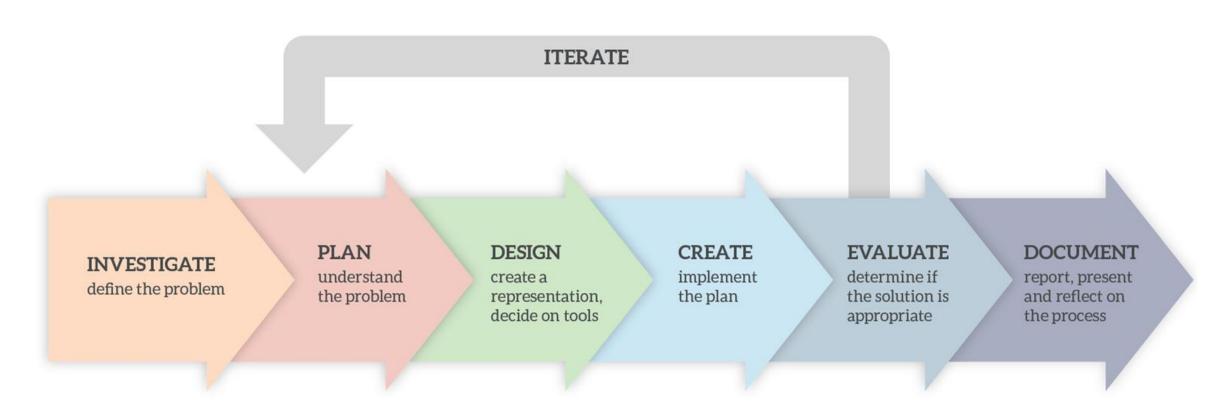


Figure 3: Overview of a design process



# The Design Process

#### **DESIGN**

create a representation, decide on tools



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# Design







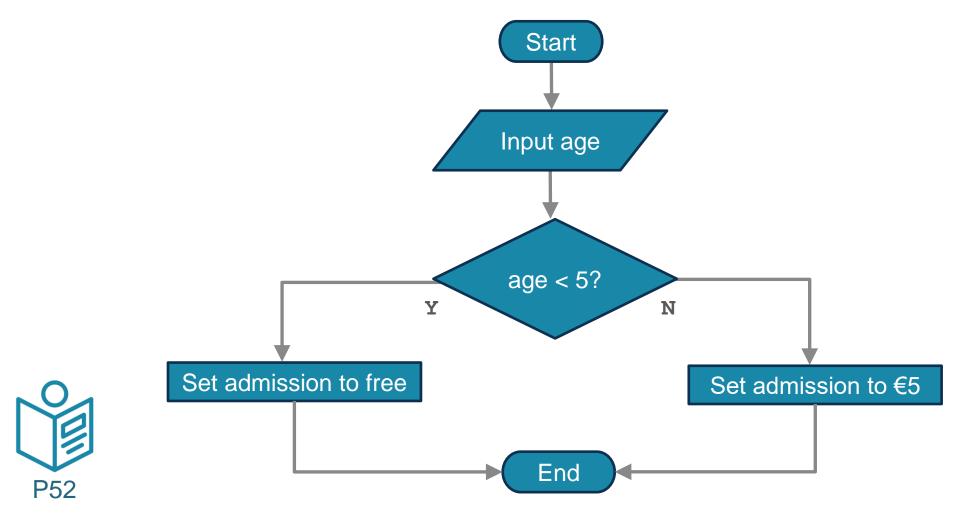
#### Flow charts

Symbol	Name	Function
	Start/end	An oval represents a start or end point
	Arrows	A line is a connector that shows relationships between the representative shapes
	Input/Output	A parallelogram represents input or output
	Process	A rectangle represents a process
	Decision	A diamond indicates a decision





## Admission example



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#### Pseudocode

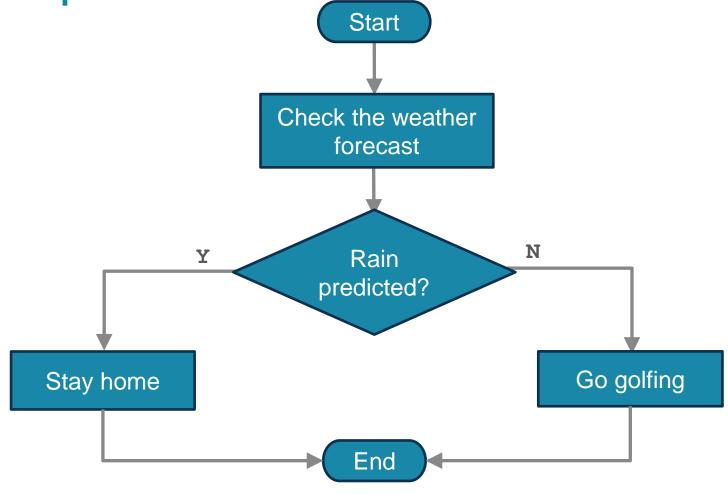
```
program start
check weather forecast
if rain predicted
    Stay home
else
    Go golfing
end if
```

program end





Golf example – a solution

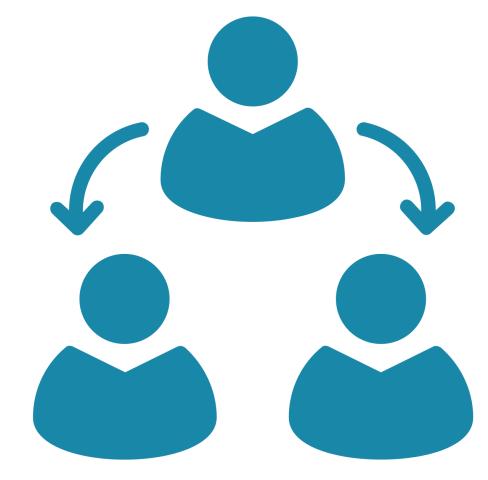




## **Group activity**







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# The Design Process

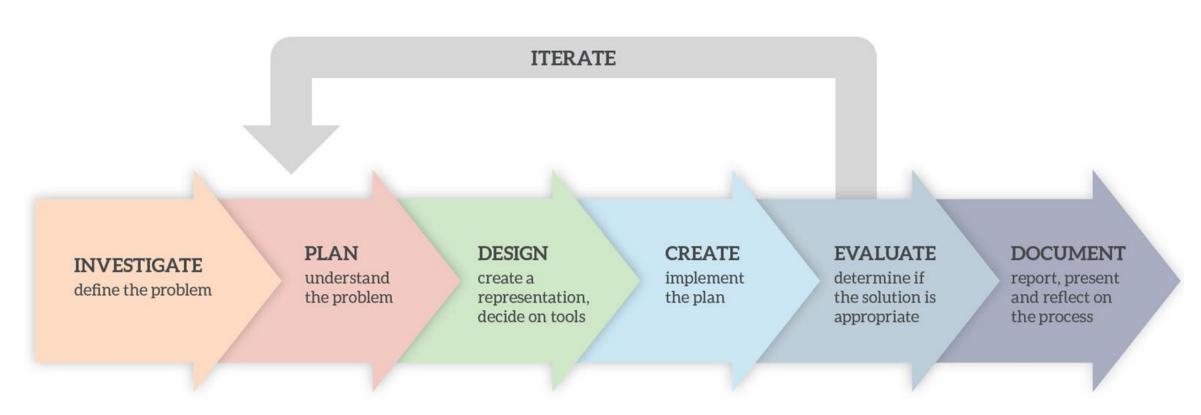


Figure 3: Overview of a design process

#### Create Evaluate Document



#### CREATE

implement the plan

#### **EVALUATE**

determine if the solution is appropriate

#### **DOCUMENT**

report, present and reflect on the process



## From the Specification

The output from each task is a computational artefact and a concise individual report outlining its development.

In the report, students outline where and how the core concepts were employed.

The structure of the reports should reflect the design process shown above in Figure 3.

INVESTIGATE
define the problem

PLAN
understand the problem

Understand the problem

PLAN
understand the problem

PLAN
understand the problem

CREATE implement the plan the solution is appropriate

determine if report, present the plan the solution is appropriate

DOCUMENT report present the plan the solution is appropriate

And Television of the process



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### From the Specification

Initial reports could be in the form of structured presentations to the whole class.

As students progress, reports should become detailed and individual.

Reports are collected in a digital portfolio along with the computational artefact and must be verified as completed by both the teacher and the student.



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# Create Evaluate Document From the Specification

Students are expected to document, reflect and present on each applied learning task



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#### Create

**CREATE** 

implement the plan It is not necessary that you finish your project – we are concerned today about understanding the process and the experience





**An Roinn Oideachais** Department of Education

