

A complex network diagram with various sized nodes (black, blue, grey) and connecting lines, overlaid on a light grey background with faint circular patterns.

# 7.3 MANUFACTURING PROCESS SHEET

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Chapter 7

# MANUFACTURING

All of the man-made products that you buy in a store need to be made (**manufactured**) somewhere

This means that the people assembling the products needs to have **instructions** on what to do

# MANUFACTURING PROCESS SHEET

The manufacturing process sheet is the set of **instructions** that lists of all the steps that need to be followed to create a technical object

- This has to be **very detailed** to ensure that all of the products created are **identical** and of the **same quality**

# MANUFACTURING PROCESS SHEET

The manufacturing process sheet includes:

- the **materials** needed to make the object
- the **tools/equipment** that will be required
- the **instructions** for what to do
- the **time required** for each step

## Manufacturing process sheet for a clock (continued)

### MANUFACTURING PROCESS SHEET

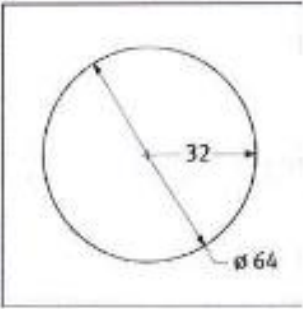
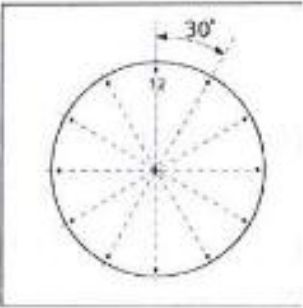
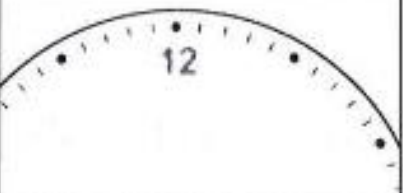
Part: Clock face

Material: White cardboard, 70 mm x 70 mm, 1 mm thick

**Name of the part**

The header contains general information about the part being made.

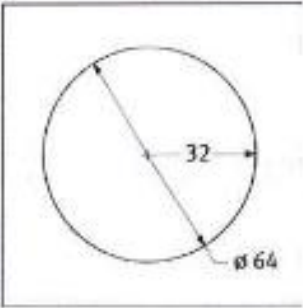
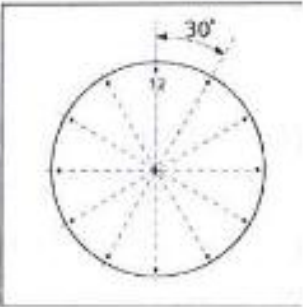
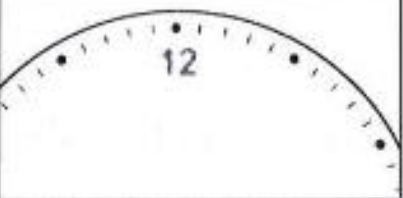
**Materials needed**

| NO.       | PROCESS   | SKETCH  | EQUIPMENT AND MATERIALS  | TIME NEEDED |
|-----------|---|---|--|-------------|
| <b>10</b> | <b>Measuring and marking</b>  |    | <ul style="list-style-type: none"> <li>• Ruler</li> <li>• Compass</li> <li>• Protractor</li> <li>• Pencil</li> </ul> | 15 min      |
| 11        | Trace a circle with a diameter of 64 mm ( $\emptyset$ ) on the cardboard.   |   |  |             |
| 12        | Make a small dot on the edge of the circle and write the number 12 below it. Divide the circle into 12 equal sections (30 degrees each), then place 11 other dots. These will indicate the hours. |   |  |             |
| 13        | Divide each section into 5 smaller sections (6 degrees each), then draw 4 lines. These will indicate the minutes.   |  |  |             |

Each section describes a general step in bold (for example, **10**) that has been broken down into a series of more specific steps (for example 11, 12 and 13).

## Manufacturing process sheet for a clock (continued)

The header contains general information about the part being made.

| MANUFACTURING PROCESS SHEET                          |   |   |  |             |
|--|---|---|--|-------------|
| Part: Clock face                                     |   |   |  |             |
| Material: White cardboard. 70 mm × 70 mm, 1 mm thick |   |   |  |             |
| NO.  | PROCESS   | SKETCH  | EQUIPMENT AND MATERIALS  | TIME NEEDED |
| <b>10</b>  | <b>Measuring and marking</b>  |   | <ul style="list-style-type: none"> <li>• Ruler</li> <li>• Compass</li> <li>• Protractor</li> <li>• Pencil</li> </ul> | 15 min      |
| 11   | Trace a circle with a diameter of 64 mm (Ø) on the cardboard.   |    |  |             |
| 12   | Make a small dot on the edge of the circle and write the number 12 below it. Divide the circle into 12 equal sections (30 degrees each), then place 11 other dots. These will indicate the hours. |   |  |             |
| 13   | Divide each section into 5 smaller sections (6 degrees each), then draw 4 lines. These will indicate the minutes.   |  |  |             |

General step

Specific steps

Each section describes a general step in bold (for example, **10**) that has been broken down into a series of more specific steps (for example 11, 12 and 13).

# WORKBOOK

p.211-213

