

N5

National 5
Coursework
Assessment Task



National 5 Graphic Communication Assignment Assessment task

Valid for session 2021-22 only.

This assessment is given to centres in strictest confidence. You must keep it in a secure place until it is used.

This edition: December 2021 (version 1.0)

© Scottish Qualifications Authority 2021

Contents

| | |
|---|---|
| Introduction | 1 |
| Instructions for teachers and lecturers | 2 |
| Instructions for candidates | 5 |

Introduction

This document contains instructions for teachers and lecturers and instructions for candidates for the National 5 Graphic Communication assignment. It must be read in conjunction with the course specification.

This assignment has 40 marks out of a total of 105 marks available for the course assessment.

This is one of two course assessment components. The other component is a question paper.

Instructions for teachers and lecturers

You must conduct the assignment under a high degree of supervision and control. This means:

- ◆ candidates must be within your direct sight
- ◆ candidates must not interact with each other
- ◆ candidates must not have access to e-mail, the internet and mobile phones
- ◆ candidates must complete their work independently – no group work is permitted
- ◆ classroom display materials that might provide assistance must be removed or covered
- ◆ with no interruption for learning and teaching
- ◆ in a classroom environment

For session 2021-22 there is an additional point of guidance about assessment conditions. If a centre is temporarily closed or if candidates are isolating, they can work on the assignment from home. Where possible, you should adhere to the published conditions of assessment to maintain the reliability and validity of the evidence generated.

Time

Candidates have 8 hours to complete the assignment, starting at an appropriate point in the course after all content has been delivered. Once candidates begin, they must continue in each subsequent class period until the permitted time allocation has been used up.

You have a responsibility to manage candidates' work, distributing it at the beginning and collecting it at the end of each session, and storing it securely in-between. This activity does not count towards the total time permitted for candidates to complete the assignment.

For session 2021-22 there is an additional point of guidance about time. Candidates can spend additional time on the assignment if necessary – for example, if a centre is temporarily closed. You should use your professional judgement to decide if additional time is necessary, as the assignment is designed to be completed in 8 hours. Spending more time on it could affect candidates' ability to cover all the learning required for the course and prepare for the question paper

Resources

This is a closed-book assessment. Candidates must not have access to learning and teaching materials, the internet, notes, exemplar materials, resources on classroom walls or anything similar.

There may be instances where restriction of internet and/or network use is prohibited (for example, if you have a local authority-managed network with specific limitations or CAD software that is web-based). However, it remains your professional responsibility to make every effort to meet the assessment conditions.

Each assessment task includes instructions and details of any equipment or materials required. Candidates can also use normal classroom equipment, software and hardware (such as drawing instruments, CAD and DTP software, and PCs to run the software) to complete the tasks.

Reasonable assistance

Candidates must progress through each stage of the assignment without your intervention or guidance, having acquired the skills earlier in the course.

Once candidates complete the assignment, you must not return it to them for further work. You must not provide feedback to candidates or offer an opinion on the perceived quality or completeness of the assignment response, at any stage.

You can provide reasonable assistance to support candidates with the following aspects of their assignment:

- ◆ printing, collating, stapling and labelling their evidence to ensure it is in the format specified by SQA
- ◆ ensuring candidates have all the materials and equipment required to complete the assignment
- ◆ understanding the information outlined in these instructions

Evidence

All candidate evidence (whether created manually or electronically) must be submitted to SQA in a paper-based format.

Each task details what evidence is required and how many pages are expected. This is a guide to ensure that candidates do not produce too much work or spend too long on a single task. Single-sided A3 pages are preferred and are typically the most suitable for the tasks; however, it is acceptable to submit A4 pages if an A3 printer is not available.

Each piece of work must be labelled with the task number, for example task 1a, and the back of each page must be clearly labelled with candidate details.

Alteration or adaptation

You must not alter, adapt or modify the assignment in any way. This includes moving the content of the assignment into a different format or workbook. All candidates must undertake the assignment exactly as it is provided.

Volume

Candidates should present their work on a maximum of eight single-sided A3-sized pages.

This figure is given to indicate the volume of evidence required; however, no penalty is applied where candidates exceed this. Full details of evidence requirements are contained within each assessment task.

Specific instructions for teachers and lecturers

You must follow these specific instructions. You must ensure that candidates are aware of the assessment conditions and know what they should do for each task.

Prior to candidates starting the assignment, you must download electronic files for their use. You must keep these files secure and candidates must not access them prior to assessment.

This assignment has three tasks, all of which are mandatory. Candidates must complete the tasks in order.

Each task has a notional time allocated to it. This is not mandatory and is an indication of how long candidates should spend on the task.

Task 1 – 12 marks

(suggested time 2-3 hours)

- ◆ Task 1: candidates must produce their production drawings electronically and generate them from a 3D CAD model.

Task 2 – 12 marks

(suggested time 2-3hours)

- ◆ Task 2a: candidates must complete this electronically.
- ◆ Task 2b : candidates can complete this manually or electronically.
- ◆ Task 2b: candidates must identify where they have used **dominance** – there is no requirement for candidates to identify the use of any other design elements/principles at task 2b.
- ◆ Task 2c: candidates must complete this electronically.
- ◆ Task 2c: candidates must fully annotate and give justification for two DTP elements and principles other than **dominance**.
- ◆ Task 2c: candidates should scale the final version.

Task 3 – 16 marks

(suggested time 2 hours)

- ◆ Tasks 3a, 3b and 3c: candidates should complete these manually. If they use an electronic method, it **must not** be 3D CAD software as they will gain no marks.
- ◆ Tasks 3a, 3b and 3c: candidates must not use drawing boards and set squares to complete this task.
- ◆ Tasks 3a, 3b and 3c: candidates will gain no marks if there is evidence they have used drawing instruments other than a straight edge.

Note: candidates must not trace drawings for any part of the assignment. They will gain no marks for traced drawings.

All electronically generated evidence must be printed and compiled for uplift by SQA.

Instructions for candidates

This assessment applies to the assignment for National 5 Graphic Communication.

This assignment has 40 marks out of a total of 105 marks available for the course assessment. It assesses the following skills, knowledge and understanding:

- ◆ demonstrating graphic design skills and creativity
- ◆ using graphic communication technologies
- ◆ producing preliminary, production and promotional graphic items in response to a situation or problem
- ◆ using illustration techniques to create graphics with relevant visual impact
- ◆ producing 2D and 3D production drawings, applying appropriate standards, protocols and conventions (drawing includes manual or electronic production methodologies)
- ◆ reviewing and evaluating your progress, giving justification for your choice of graphic items and the graphic communication techniques employed

This is a closed-booked assessment. Your teacher or lecturer will let you know if there are any specific conditions for doing this assessment.

Note: you must not trace drawings for any part of the assignment – you will gain no marks for traced drawings.

In this assessment, you have to:

- ◆ produce a range of graphics in response to a series of tasks, which will test aspects of the skills and knowledge listed above
- ◆ complete all of the tasks in the order presented

You have 8 hours to complete the assignment, excluding the time required to set up and clear away any equipment you need, and for any printing that is required.

You must not use any text, images, or other items from any other source unless you create them during this 8-hour assignment.

The assignment has three tasks, with marks allocated as follows:

Task 1 – 12 marks: producing production drawings for a smart speaker
(Suggested time 2-3 hours)

Task 2 – 12 marks: producing promotional and preliminary graphics for the smart speaker.
This includes a CAD-rendered smart speaker and work for a digital advertising board.
(Suggested time 2-3 hours)

Task 3 – 16 marks: producing preliminary and promotional graphics for a wireless charging base with lamp.
If you use an electronic method, it must not be 3D CAD software. You will gain no marks if you use this software.
(Suggested time 2 hours)

Your teacher or lecturer will provide you with:

- ◆ task sheets 1 to 3, graphic communication briefs, including some initial research information
- ◆ data sheets 1a to 3c
- ◆ electronic files for task 2

Submitting your work

You must label each piece of evidence with the task number (for example task 1a), and the back of each page must be clearly labelled with your:

- ◆ name
- ◆ date of birth
- ◆ Scottish Candidate Number (SCN)
- ◆ centre name
- ◆ centre number

Task 1: smart speaker

An electronics company is planning to launch a new smart speaker.

Using the information shown on data sheets 1a, 1b and 1c, model and assemble the smart speaker components using 3D CAD software. From these models, produce production drawings that will allow the smart speaker to be manufactured.

1a Produce suitable component orthographic views of the parts of the smart speaker. You must produce an elevation, plan and sectional end elevation for each of the following parts:

- ◆ the speaker base
- ◆ the speaker casing
- ◆ the speaker top

You must produce the views with appropriate dimensioning and annotations and to a suitable scale.

You must produce views in the same orientation as shown on each of the individual data sheets.

You must use third angle projection and the views must show all hidden detail.

(5 marks)

1b Produce a plan, elevation and a sectional end elevation of the assembled smart speaker to a suitable scale.

The cutting plane for the sectional view must cut through the vertical centre of the smart speaker.

- ◆ You must use third angle projection.
- ◆ Do not show hidden detail.
- ◆ You must produce the views as line drawings.
- ◆ You must produce views in the same orientation as data sheet 1c.

(3 marks)

1c Produce an exploded isometric view of the smart speaker.

- ◆ Do not show hidden detail.
- ◆ You must produce the view as a line drawing.
- ◆ You must not render the exploded isometric view.
- ◆ You must produce the view in the same orientation as the pictorial view in data sheet 1a.

(2 marks)

1d Include correct British Standard conventions and line types on all of your drawings.

(2 marks)

Note: you must create the production drawings for task 1 electronically and print them out. You should complete task 1 on two or three single-sided A3-sized pages.

You should spend approximately 2-3 hours on task 1.

Your completed assignment (tasks 1 to 3) should be on no more than eight single-sided A3-sized pages.

Task 2: digital advertising board

The electronics company would like to promote the smart speaker using a digital advertising board.

For this task, your teacher or lecturer will provide you with the electronic files of the graphics shown on data sheet 2b.

- ◆ You **must** use at least one of the graphics.
- ◆ You can use the graphics as they are or edit them to suit your design.
- ◆ You can incorporate your own design features for the advertising board (for example logo, colour schemes and styling).
- ◆ You **must not** use any text, images, or other items from any other source unless you create them during this 8-hour assignment.

Using the information on data sheet 2a and data sheet 2b produce the following preliminary and promotional graphics:

2a Using the fully assembled smart speaker you modelled in task 1, produce a CAD-rendered pictorial illustration of your smart speaker, complete with appropriate colours, materials, highlights and shadows.

- ◆ The speaker base and casing must be made from solid colour plastic.
- ◆ The speaker top must be transparent.

(2 marks)

2b Produce two preliminary layouts/thumbnails of the digital advertising board for the smart speaker. Your preliminary layouts/thumbnails must include the design principle of **dominance** and at least **two** other design elements/principles. You must identify where you have used **dominance** in **both** layouts/thumbnails.

Your layouts/thumbnails must also contain a title, some suitable extended text (more than one word) and an image.

You may use either manual or electronic methods to complete this task.

(2 marks)

2c Produce a final version of the promotional graphic developed from your preliminary layouts/thumbnails, complete with annotations, a title, extended text and chosen image or images.

You must produce your promotional graphic using the scale indicated on data sheet 2a.

You must annotate this layout, referring to two design elements/principles you have used, **other than dominance**, and justify their use.

(8 marks)

You should complete task 2 on two or three single-sided A3-sized pages.

You should spend approximately 2-3 hours on task 2.

Your completed assignment (tasks 1 to 3) should be on no more than eight single-sided A3-sized pages.

Task 3: wireless charging base with lamp

The electronics company is going to produce a wireless charging base with lamp to add to their new product range.

The company has listed the materials for each part of the lamp:

| Part of lamp | Material |
|-------------------|---------------------------|
| Lamp shade | Transparent glass/plastic |
| Lamp shade holder | Solid colour plastic |
| Charging base | Solid colour plastic |

Using the drawings shown on data sheets 3a, 3b and 3c, produce preliminary sketches for the wireless charging base with lamp.

Evidence of measuring, tracing or using any drawing instruments other than a straight edge will result in no marks being awarded for this task.

If you use an electronic method, it must not be 3D CAD software. You will gain no marks if you use this software.

3a Produce orthographic sketches of each of the parts of the wireless charging base with lamp. Include enough information and dimensions to enable the parts of the product to be modelled using 3D CAD software.

- ◆ Lamp shade – you must produce an **elevation** and **plan**.
- ◆ Lamp shade holder – you must produce an **elevation** and **plan**.
- ◆ Charging base – you must produce an **elevation**, **end elevation** and **plan**.

You must use third angle projection and show all hidden detail.

(7 marks)

3b Produce orthographic sketches of the elevation, end elevation and plan of the assembled product.

You must use third angle projection. **Do not** show hidden detail.

(4 marks)

3c Produce a rendered pictorial sketch of the fully assembled product, showing appropriate colour, highlights, shadows and materials. The features of the charging base and lamp shade holder must be visible through the glass/plastic lamp shade.

(5 marks)

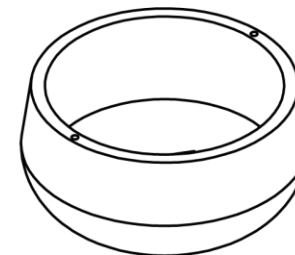
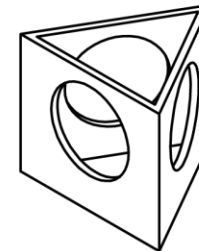
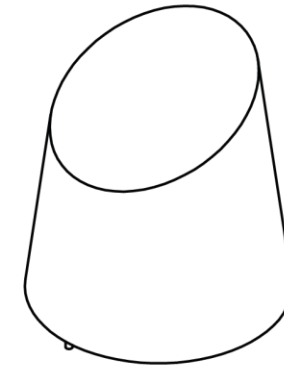
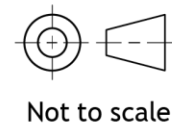
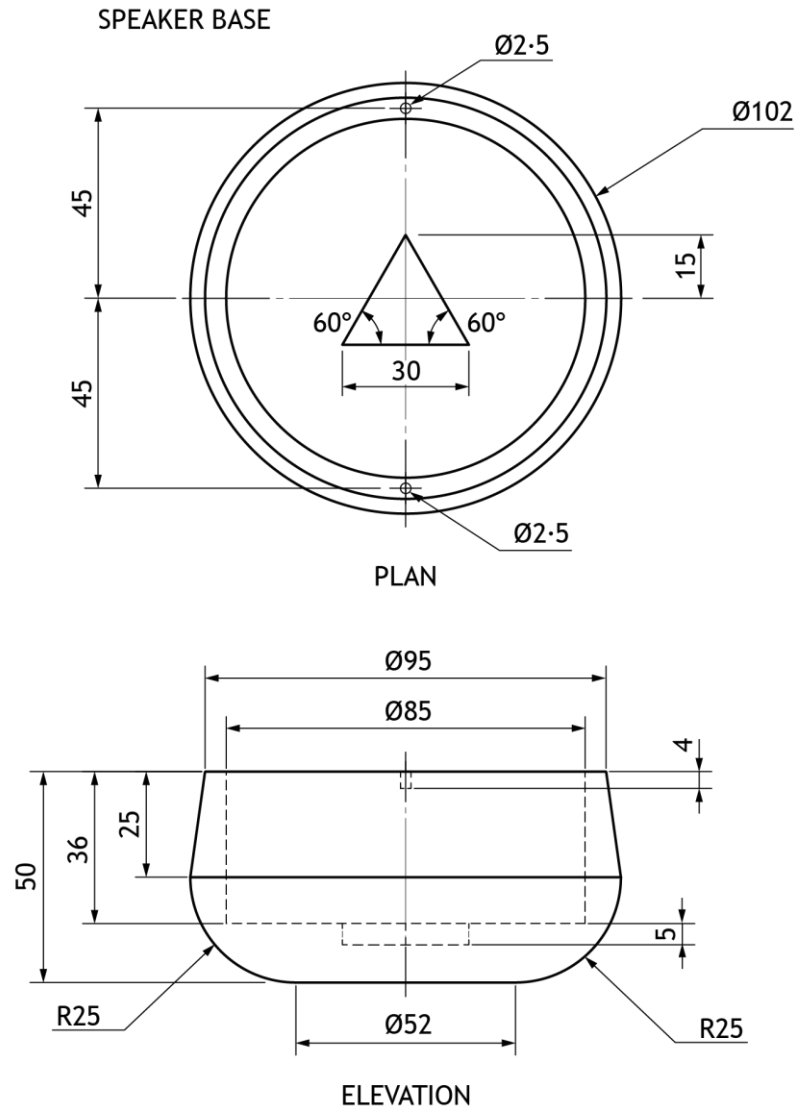
You should complete task 3 on two or three single-sided A3-sized pages.

You should spend approximately 2 hours on task 3.

Your completed assignment (tasks 1 to 3) should be on no more than eight single-sided A3-sized pages.

Data sheet 1a

The following graphics are provided to help you produce the component parts and the assembly of the smart speaker. You must model these using 3D CAD software and then create production drawings for them using electronic methods.

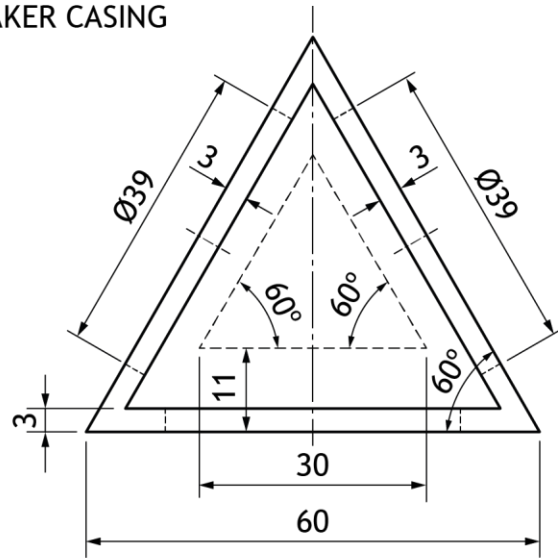


PICTORIAL VIEW

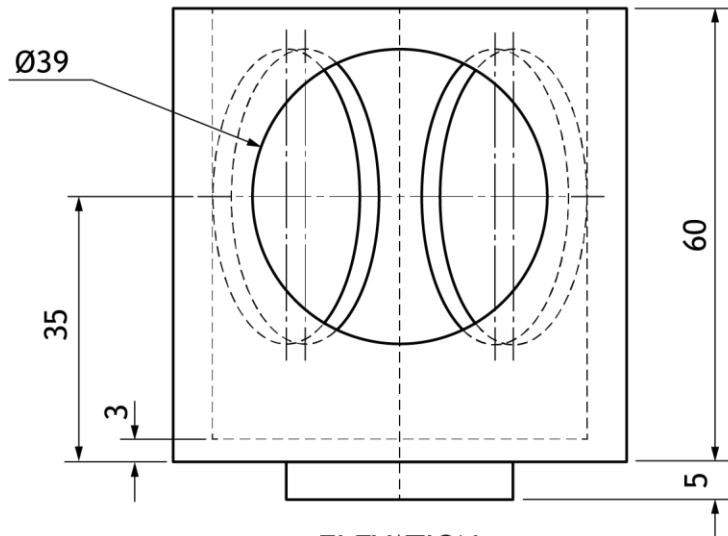
Data sheet 1b

The following graphics are provided to help you produce the component parts and the assembly of the smart speaker. You must model these using 3D CAD software and then create production drawings for them using electronic methods.

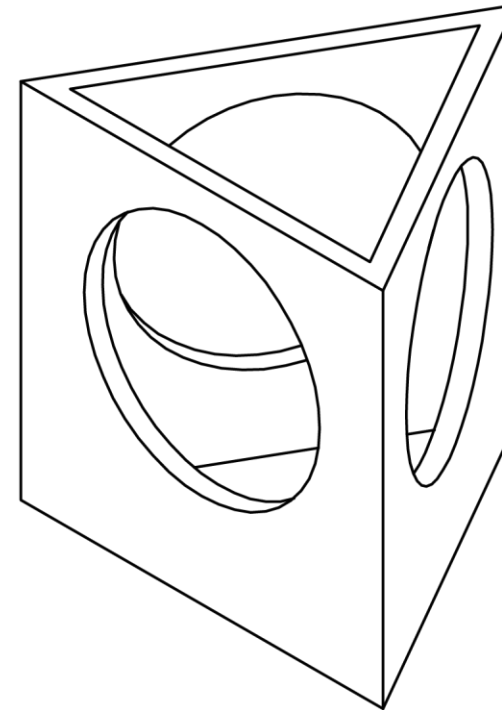
SPEAKER CASING



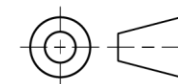
PLAN



ELEVATION



PICTORIAL VIEW

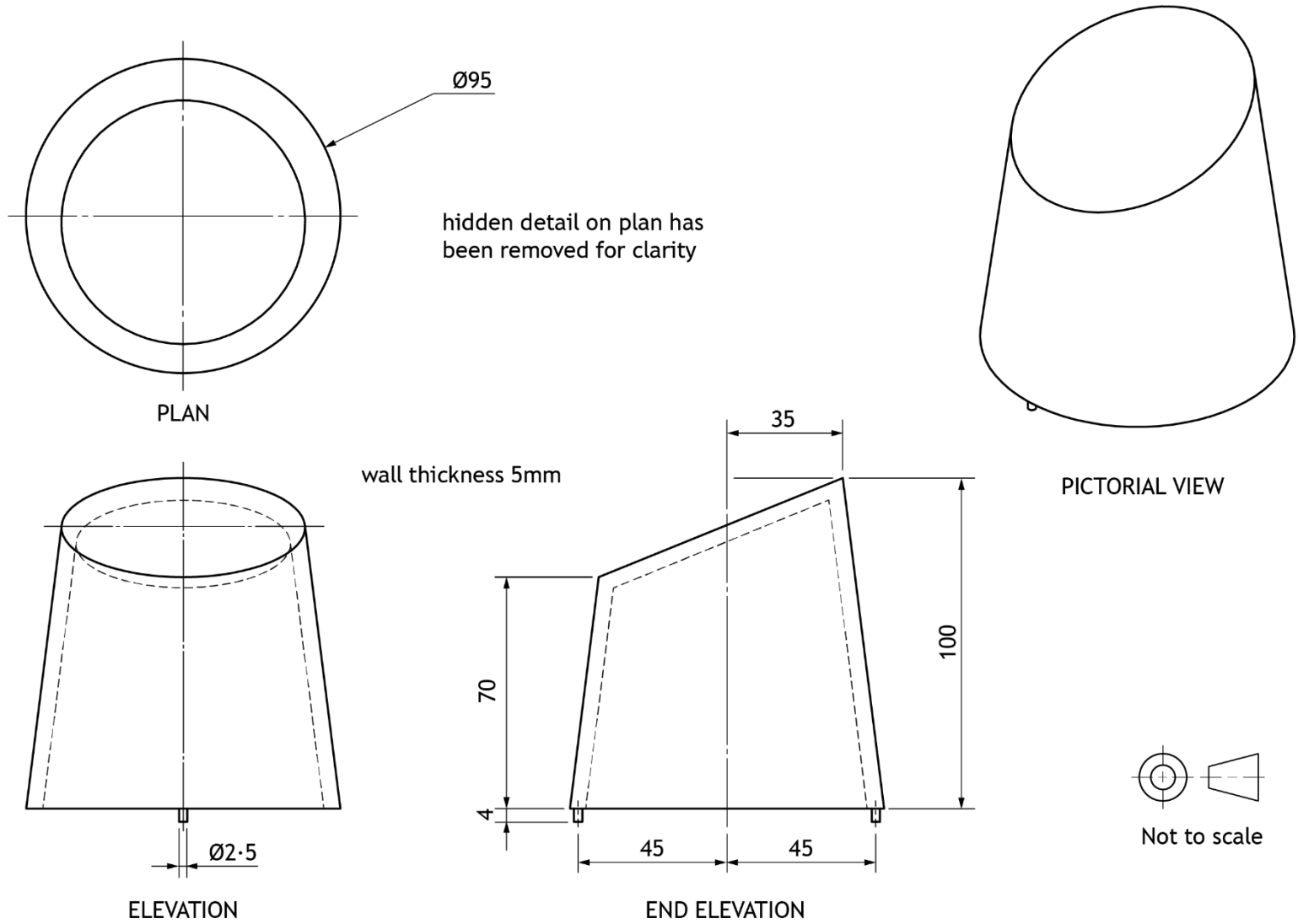


Not to scale

Data sheet 1c

The following graphics are provided to help you produce the component parts and the assembly of the smart speaker. You must model these using 3D CAD software and then create production drawings for them using electronic methods.

SPEAKER TOP

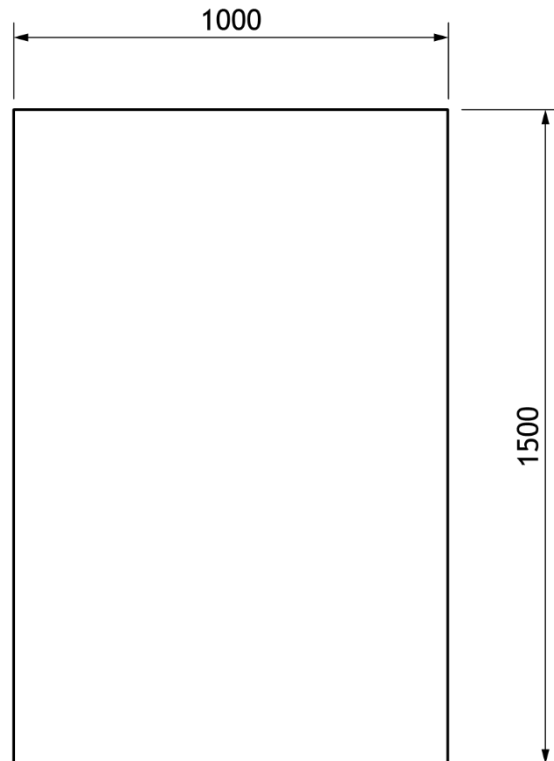


Data sheet 2a

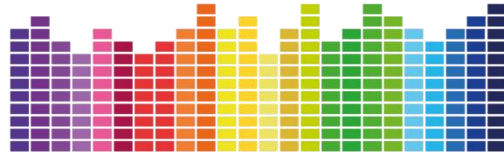
The digital advertising board

The smart speaker will be advertised on a digital advertising board. The advertising board will be produced to the following dimensions 1000mm x 1500mm. The advertising board is laid out in portrait orientation. Use a scale of 1:5.

An example of one of the advertising boards is shown.



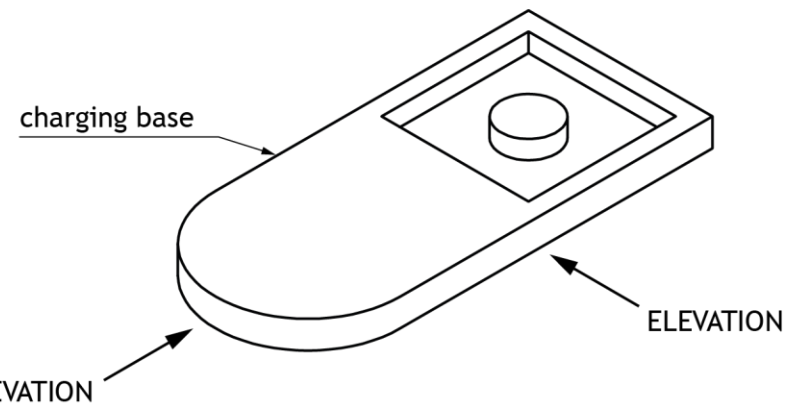
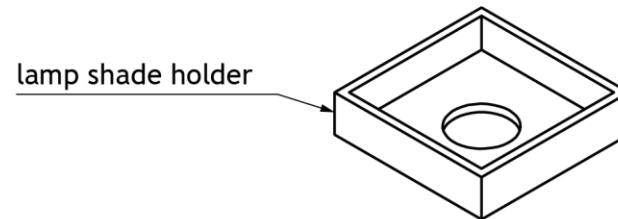
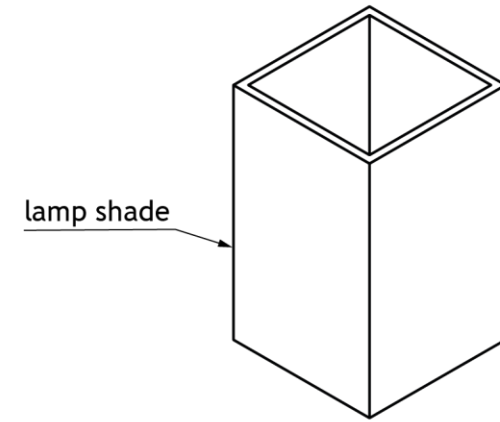
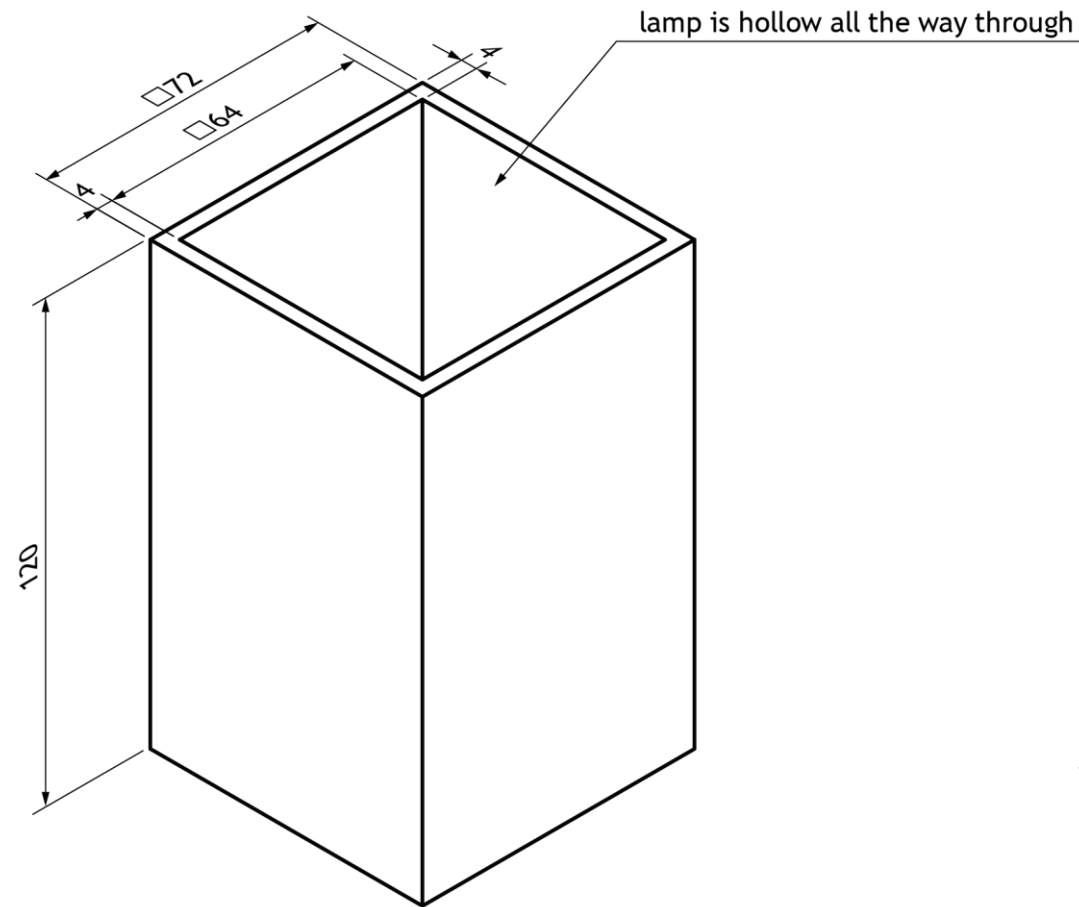
Data sheet 2b



Data sheet 3a

The following data is provided to help you produce the sketches of the charging unit.

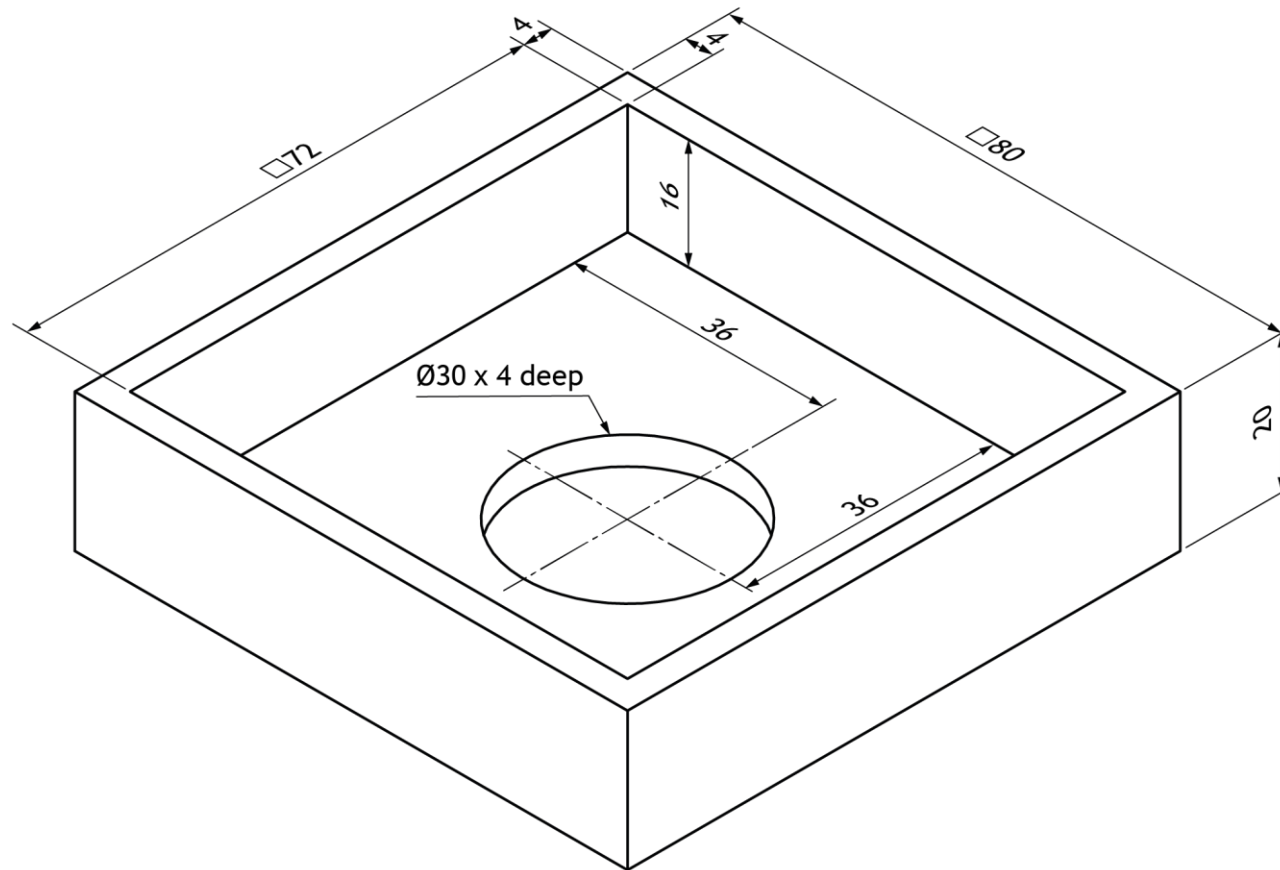
LAMP SHADE



Data sheet 3b

The following data is provided to help you produce the sketches of the charging unit.

LAMP SHADE HOLDER

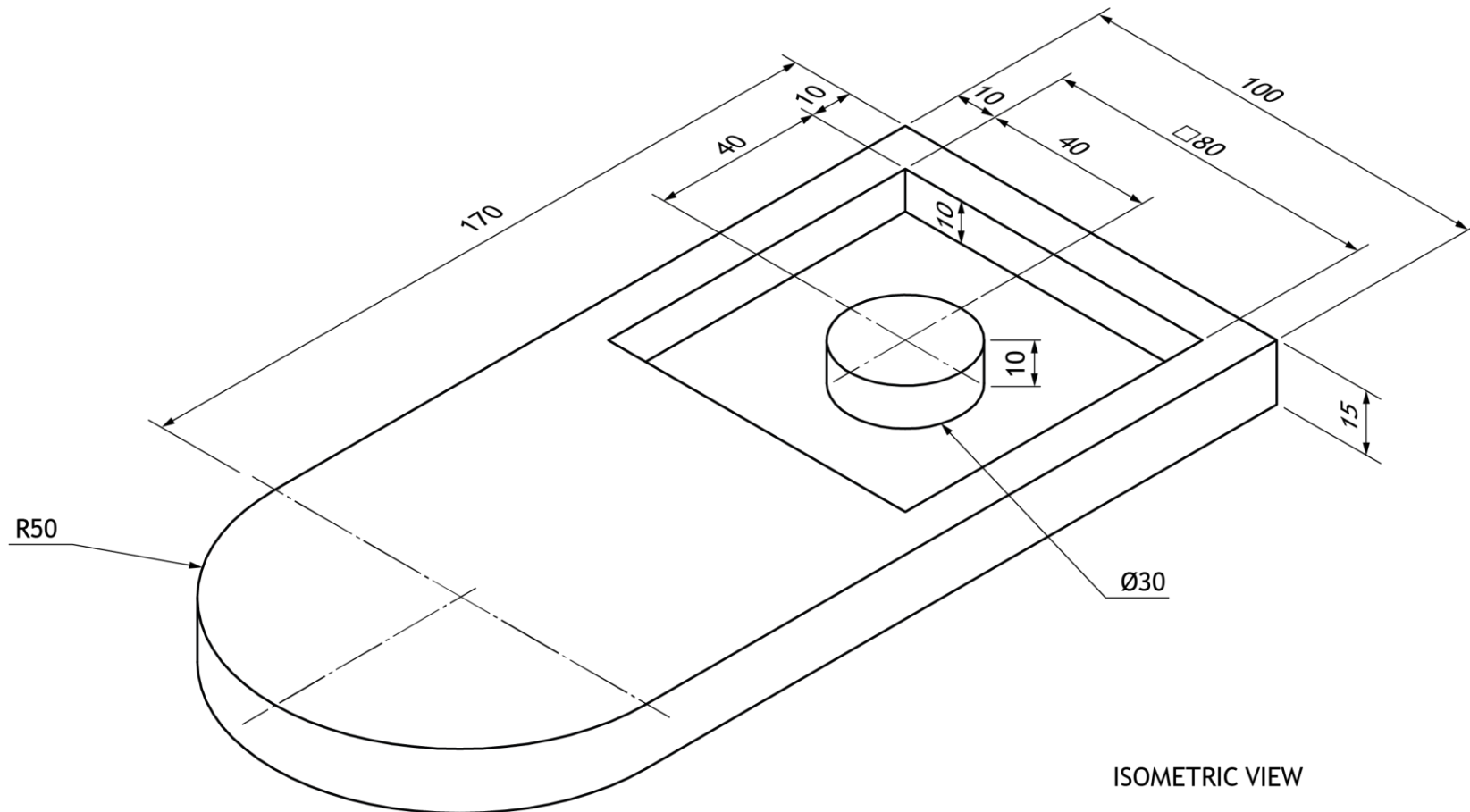


ISOMETRIC VIEW

Data sheet 3c

The following data is provided to help you produce the sketches of the charging unit.

CHARGING BASE



Copyright acknowledgements

Page 15

<https://www.shutterstock.com/image-vector/roll-banner-stand-on-isolated-clean-773889487>

Page 16

<https://pixabay.com/vectors/sound-visualized-piles-rainbow-308418/>

<https://unsplash.com/photos/OjpAgybel6c>

<https://unsplash.com/photos/idXQEOxhmvU>

<https://unsplash.com/photos/DlO0yz4U67A>

<https://unsplash.com/photos/CdCL8qho5EY>

<https://pixabay.com/photos/bedroom-bed-alarm-clock-night-table-1006526/>

<https://pixabay.com/illustrations/wifi-wi-fi-wifi-connection-internet-1818312/>

Administrative information

Published: December 2021 (version 1.0)

History of changes

| Version | Description of change | Date |
|---------|-----------------------|------|
| | | |
| | | |
| | | |
| | | |

Security and confidentiality

This document can be used by practitioners in SQA approved centres for the assessment of National Courses and not for any other purpose.

This document may only be downloaded from SQA's designated secure website by authorised personnel.

© Scottish Qualifications Authority 2021