

Teaching guide: NEA

This is a guide to the Non-exam assessment (NEA) for GCSE Food Preparation and Nutrition.

Use it alongside the [Scheme of assessment](#) and [Non-exam assessment administration](#) sections of the specification.

Food investigation task

The food investigation is a controlled task, completed independently, under informal teacher supervision. Students should be prepared to approach the task confidently and independently, and to personalise their investigation and written report.

With three tasks to select from, it's likely that students will conduct similar experiments and investigation work. However, their written outcomes should differ in content, presentation and style.

Students can produce some small group investigation work but students need to record their input and evaluate the results independently.

Examples of tasks

1. Investigate what type of flour is best for bread making.
2. Investigate the use of raising agents in baked products.
3. Investigate the ingredients used to thicken sauces and soups.

Breakdown of assessment

Section	Marks available
Section A: Research	6
Section B: Investigation	15
Section C: Analysis and evaluation	9

Section A: Research

See the section on 'Research' in the [Scheme of assessment](#)

Guidance for teachers

- Students shouldn't need to spend more than two hours researching and concluding the research which allows time for the practical investigation and recording of results.

- It's your decision how many of the three tasks should be presented to students.
- It's important to allow time for the practical investigation.
- The background research must relate to the task and be relevant, focused and presented concisely.
- Research should not just be copied text but edited and explained by students. Students should make use of their prior knowledge.
- To gain five to six marks the investigation must be thoroughly planned and justified.
- As students will have carried out independent research and analysis, they will devise different hypotheses and predictions.

Guidance to give your students

- Get them to analyse/breakdown the task:
 - what is the aim of the investigation?
 - what do you need to find out?
 - what do you know already about the subject?
 - what background research will be required?
 - where will you find the information you need?
- Secondary research can come from textbooks and websites. Students don't need to carry out primary research for this task.
- Research must be referenced, eg add the sources of information used by adding a bibliography at the end, or alternatively through footnotes.
- Conclude the research to plan the practical investigation.
- A hypothesis/prediction could be, 'starchy vegetables such as potatoes are the most suitable ingredients to thicken soups'.

Section B: Investigation

See the section on 'Investigation' in the [Scheme of assessment](#)

Guidance for teachers

- There's no set number of investigations required as this will be based on the hypothesis. Two or three investigations, dependent on the complexity and time allowed, should allow students to answer the hypothesis and prediction.
- The complexity of the practical is not relevant for this task.
- Students may change their original plan after obtaining the results of one investigation.
- Photographing the investigation work can help motivate students when writing up the results. This is particularly helpful for less able students.

- Students must have sufficient time to plan, investigate, record and analyse the result within the ten hours.
- Throughout the teaching of the specification it's good practice to carry out some examples of investigation work (for example, testing the viscosity of sauces). This will develop students' investigative skills and guide them in how to write up an investigation. Students can then refer to these examples when writing up their investigation.

Guidance to give your students

- Plan the practical investigation carefully. The investigation work must relate to the hypothesis or prediction. They need a clear aim: what are they trying to find out from each investigation?
- They will need to have a clear method for carrying out the investigation. Get them to think carefully about the controls they will need to apply to make the tests fair. Listing the controls can be helpful. Ask them to consider how they conducted an experiment in a science lesson or the food investigation tasks they have already carried out.
- Recording the findings is very important. A chart/table should be prepared before they start the investigation.
- Through practical experimentation investigate and evaluate how ingredients work and why. Each investigation should:
 - relate to the research
 - have a clear aim
 - be concluded.
- The number of investigations will be determined by the time available and the complexity of the investigations.
- Practical skills are not assessed in this task; students are assessed on their knowledge of the science of cooking.
- Results of each investigation should be used to inform the next stage of the investigation with reasoning.

Section C: Analysis and evaluation

See the section on 'Analysis and evaluation' in the [Scheme of assessment](#)

Guidance for teachers

- The report should show clear and specific links between the research and the investigation findings.
- Students can disprove the hypothesis/prediction.
- When marking the final piece, look for the understanding of the working characteristics and the functional and chemical properties of ingredients.

- The differentiating factor for higher marks will be how students explain how the results will be used when preparing and cooking food in the future.

Guidance to give your students

- Students should conclude each investigation by explaining what they have found out and explain the results.
- Link the results to the research explaining the working characteristics, functional and chemical properties of the ingredients.
- Answer the hypothesis/prediction with explanation/justification.
- Use specialist terms and clearly communicate findings. Encourage students to use the key terms they have learnt during their study of the science of food.
- Include a bibliography to show where information has been sourced from.

Teacher checklist

- Is the research well explained and related to the task?
- Is the work thoroughly planned with clear aims and conclusions?
- Does the task include appropriate, relevant and well planned practical investigations?
- Have the practical investigations been carried out under controlled conditions to ensure fair and accurate results?
- Are the results of the investigations clearly recorded?
- Do the findings of the investigation link to the background research?
- Does the work show evidence of very good understanding of how ingredients work and why?
- Do the conclusions explain what has been found out?
- Is there explanation of how the findings of the investigation could be used when preparing and cooking in the future?
- Does the work use subject specific terminology?

Food preparation task

Students plan, prepare and cook three dishes, writing up the outcomes with photographic evidence. Understanding and application of nutritional knowledge will be a requirement of all tasks.

Examples of tasks

1. Plan, prepare, cook and present a range of dishes, using a variety of skills, which would be suitable for vegetarians. Present three final dishes.

2. Plan, prepare, cook and present a range of dishes, using a variety of skills, which are a good source of fibre and would appeal to teenagers. Present three final dishes.
3. Plan, prepare, cook and present a range of dishes, using a variety of skills, from the Mediterranean culinary tradition. Present three final dishes.

Breakdown of assessment

Section	Marks available
Section A: Researching the task	6
Section B: Demonstration of technical skills	18
Section C: Planning for the final menu	8
Section D: Making the final dishes	30
Section E: Analyse and evaluate	8

Section A: Research the task

See the section on 'Research the task' in the [Scheme of assessment](#)

Guidance for teachers

- Analysing the task could be through mind-mapping or key words.
- Research should be concise, relevant and focused.
- Don't let students spend a disproportionate amount of time on the research to the detriment of other marking criteria.
- Setting clear aims for each piece of research enables students to focus.
- The use of prior knowledge should be encouraged.
- If a questionnaire is used the focus should be on the analysis of the results. A copy of the questionnaire does not need to be included.
- Students need to consider the dishes they make carefully to enable a good range of technical skills to be demonstrated.

Guidance to give your students

- Get students to analyse the task and explain what they will need to do to answer the task successfully. Ask them to consider the research they will need to carry out.
- The research will be focused on either:
 - life stage (young children, teenagers, adults, elderly)
 - dietary group (vegetarians, vegans, coeliac, lactose intolerant and high fibre diets)

- culinary tradition (Mediterranean, Middle Eastern, British, Asian).
- For this task, it may be appropriate to collect the information using primary sources (such as interviewing) as well as secondary sources.
- The research should be concise and purposeful.
- Summarise the research and identify a range of suitable dishes to make, whilst considering the skills required to make the dishes.
- Consider a wide range of ideas that could be made, for example, through mind-mapping or annotated images. List the technical skills used in each dish.
- Recording six to eight ideas should allow students to show a good range of skills using different ingredients and processes. When they have recorded their ideas, students will then need to decide which dishes to make.
- Select and justify dishes to make that use a variety of technical skills. Students will make three to four of these dishes.
- Students' dishes should show different, not repetitive, making skills. The dishes they select should reflect the research findings. Students can make both savoury and sweet dishes.
- This is an excellent opportunity to experiment, be creative and showcase students' food preparation/technical skills.

Section B: Demonstrating technical skills

See the section on 'Demonstrating technical skills' in the [Scheme of assessment](#)

Guidance for teachers

- Students should be aware of different technical skills: basic, medium and complex. This could be exemplified throughout the teaching of the specification.
- Students will be rewarded for the use of a range of technical skills at this stage. The quality of the outcomes produced will also be considered.
- Selecting unchallenging skills/dishes will prevent students from accessing the top mark bands.
- Students should have the opportunity to use different equipment, this could be small and/or electrical equipment.
- Students should provide evidence of a review of their technical skills and how these skills will be used in the final three dishes.
- When assessing this section consider whether students:
 - make dishes with a variety of technical skills
 - have selected dishes relevant to the task
 - work accurately and confidently

- have a very good understanding of the ingredients and processes they are using
- work independently
- use equipment skilfully and accurately
- work safely and hygienically.

Guidance to give your students

- At this stage of their project, students will have the opportunity to experiment with new practical skills, as well as to develop and refine existing skills.
- Choosing which dishes to make can be a difficult task but it's important students select the right ones. Get them to ask relevant questions to check the dishes that they decide to make will be suitable. For example:
 - are the dishes a suitable choice for the task and reflect the findings of the research?
 - is there a wide range of skills, processes, techniques and cooking methods?
 - how will the dishes be presented?
- Make three to four dishes.
- Get students to record the results of their making including: the skills they have used (this can be shown using annotated photographs), reasons for choosing the recipes and results of sensory analysis.

Section C: Planning for the final menu

See the section on 'Planning for the final menu' in the [Scheme of assessment](#)

Guidance for teachers

- The three dishes should not be remakes of the original. Students will use their skills to research, modify and create new dishes to answer the task.
- Look for justification of the appropriateness of the final dishes.
- For the top mark band the time plan will show well thought through dovetailing and accurate timings.
- The time plan will show and explain the food safety principles when preparing, cooking and presenting food and reference to temperatures.
- Students will use the time plan in the three hour assessment and will be monitored by the assessor.

Guidance to give your students

- After demonstrating a range of technical skills, students will decide on three dishes to make for the final assessment. The final dishes can use of some of the same technical skills, but can't have been made previously.

- When they have selected the final three dishes, students will need to give reasons for choosing the dishes. Points that could be considered when giving reasons for choice:
 - suitability for task
 - research findings
 - technical skills and processes
 - cooking methods
 - sensory properties (appearance, taste, texture, aroma)
 - time available (three hours)
 - presentation of the final dishes
 - nutritional value/healthy eating
 - food provenance (eg use of seasonal/local ingredients)
 - cost of ingredients/portion size.
- When the final dishes have been decided, students need to write a time plan to help with their organisation and ensure they complete the work in the three hour period. A time plan could include:
 - all the stages of making in the correct order
 - timings for each stage
 - food safety considerations.
- Students should follow the time plan in the three hour practical, so advise them to make it accurate and thorough.

Section D: Making the final dishes

See the section on 'Making the final dishes' in the [Scheme of assessment](#)

Guidance for teachers

- Schools should organise the practical three hour assessment as they see fit. This must be a block of time. Assessors need to be able to accurately assess student performance within this time frame.
- Any number of students can complete the practical assessment at one time. You decide this, taking into consideration individual circumstances.
- The practical assessment does not need to be carried out in the presence of an invigilator or in silence.
- Any special consideration for registered students should also be applied to the three hour assessed practical.
- Students shouldn't be disadvantaged by cost of ingredients.
- Photographic evidence of the final dishes including candidate name and number must be included.
- Use the full range of marks available.

- There is no expectation that teachers carry out sensory testing.
- Before the practical assessment it will be permissible for students to: wash vegetables, line tins, weigh and measure. Students will not be allowed to prepare any ingredients.
- The expectation is that most of the washing up etc will be carried out throughout the practical assessment as recorded on the time plan.
- You will need to assess how closely the time plan has been followed.
- Students can make one portion of each dish or present full dishes.
- Practical work should be assessed holistically.
- The finish of the dishes is assessed not the table setting etc.
- During the practical assessment, the teacher will be assessing:
 - use and execution of a range of technical skills
 - accurate and confident working
 - organisation and the use of the time plan
 - independent working
 - use of equipment
 - good personal hygiene and food safety
 - knowledge of ingredient and processes
 - presentation of the final dishes.
- Assessment of practical work can be recorded using school's own assessment sheets and transferred to the Candidate Record Form.

Guidance to give your students

- For the three hour practical, students will need to be organised and fully prepared. Emphasise the need to plan.
- On the day, students will need to:
 - prepare, cook and present the final dishes
 - use a range of skills/equipment and processes
 - execute the technical skills with accuracy
 - have good knowledge and application of food safety principles
 - show good organisation and good planning by using the time plan and dovetailing tasks
 - present the final dishes
 - ensure final dishes are photographed.

Section E: Analyse and evaluate

See the section on 'Analyse and evaluate' in the ['Scheme of assessment'](#)

Guidance for teachers

- Sensory analysis can be carried out at home.
- Students can use any sensory testing method they deem appropriate.
- For the higher mark bands students should show excellent knowledge of nutrition, and fully draw and explain conclusions from the nutritional data.
- Detailed, relevant and creative improvements should be suggested for the final dishes.
- Costing can be carried out using a software package, spreadsheets or by mathematical calculations.
- A bibliography should be included at the end of the project.

Guidance to give your students

- When they have completed the making of the final dishes, students should:
 - carry out sensory evaluation (appearance, taste, texture and aroma) of the results (this can be achieved by setting up testing panels and a variety of sensory analysis methods can be used)
 - cost the final dishes
 - carry out nutritional analysis of the three final dishes (this can be done using a nutritional analysis programme or using food tables)
 - identify improvements for the final dishes (this could relate to cost, sensory characteristic, nutrition or food provenance)
 - add a bibliography.

Teacher checklist

- Is the research well explained and related to the task?
- Is the work thoroughly planned with clear aims and conclusions?
- Is there evidence of a range of technical skills when making?
- Is there full justification for the choice of dishes at each stage?
- Has a time plan been produced with appropriate dovetailing?
- Was the practical assessment well planned and the time plan used?
- Was the level of organisation/food safety in practical sessions good?
- Were the dishes finished to a high standard?
- Is there good evidence of analysis and evaluation when carrying out sensory analysis?
- Is there good understanding of nutrition and costing?

Your role

How to supervise your students

See [Supervising and authenticating](#) for guidance in supervision of coursework. Other points to note:

- Whole class investigation work is not permitted, ie all the class doing the same practical investigations throughout the task
- In cases of collaborative work, the contributions of individual students need to be recorded accurately, to ensure they are being credited for their own work
- Students should not work in groups throughout the whole investigation
- Sources used by students need to be clearly recorded and acknowledged
- Make sure that most of the work is carried out in the classroom. If a student needs to complete some work outside of the classroom environment, for example, as part of a homework task such as sensory testing or primary research, you'll need to be confident that the quality of work subsequently submitted is of an identical standard to that seen in the classroom. Don't forget to consider time allocations for homework and how this affects the overall timing of the students' work.

How to provide effective feedback

Students are free to revise and redraft a piece of work before submitting the final piece.

At this point, you can review their draft work and provide generic advice to ensure that the work is appropriately focused.

This should be before the students submit their final piece (as students can't revise their work after that time). You can also refer to the JCQ guidance on [conducting NEA](#)

What you can't do when providing feedback

- Provisionally assess work and then allow the student to revise it.
- Give advice on specific improvements to meet the criteria.
- Give detailed feedback on errors or omissions.
- Indicate how specific improvements to presentation or content can be made.
- Revise work once it's been submitted for final assessment.
- Provide model answers or writing frames specific to the task, such as outlines, paragraph headings or section headings.

The final step

The marks for both tasks should be submitted to AQA by 7 May.

A sample of work will then be requested for moderation.
See our website for information on [how sampling works](#)