

WSET Level 4 Diploma in Wines: Preparing for Theory Examinations

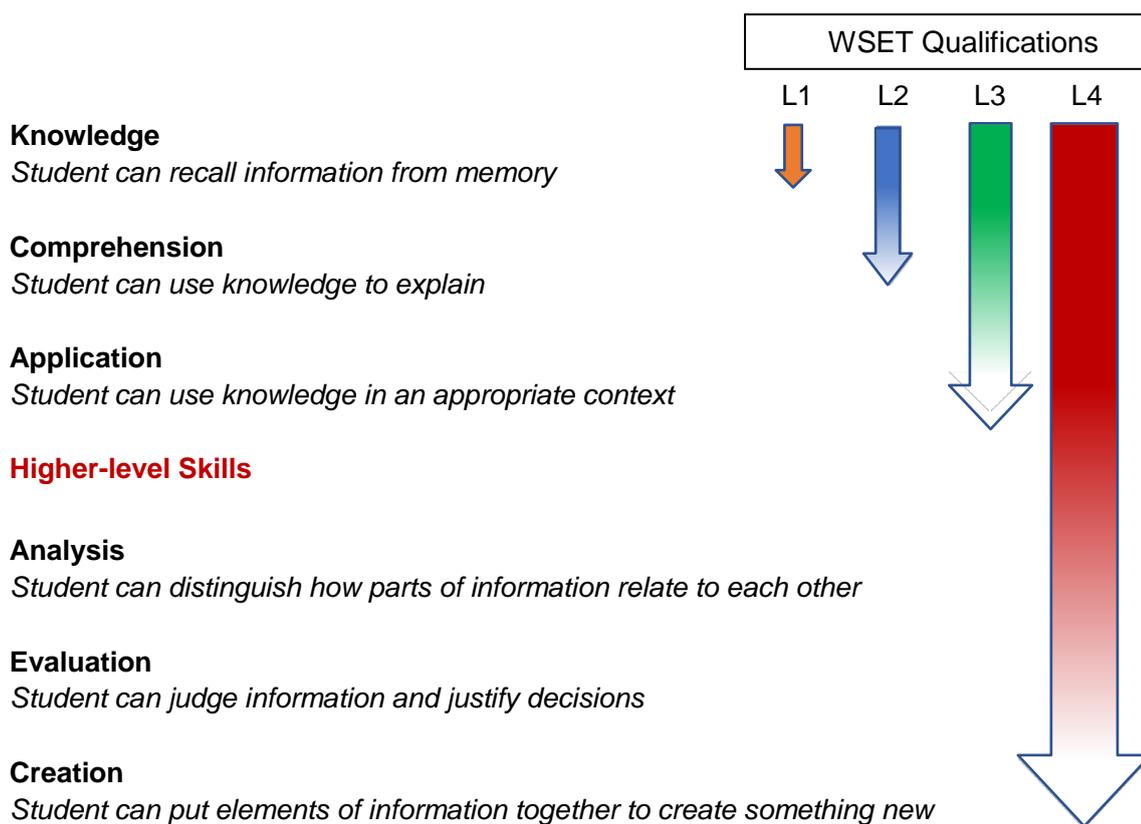
Introduction

Every WSET qualification is based on a solid foundation of product knowledge, which increases in detail and scope with progression upwards through levels 1–4. In addition to displaying this core knowledge, at level 4 students are required to demonstrate higher-level skills. At level 4 these skills are those that will help prepare them to be decision makers in the global wine industry.

For level 1 through to level 3 qualifications there is a progression from knowledge to comprehension and application that can be mapped to a hierarchy of qualification levels. However, the higher-level skills of analysis, evaluation and creation required for level 4 are broadly speaking of equal status.

Successful WSET Level 4 Diploma in Wines candidates will have a comprehensive and detailed knowledge and understanding of wine. The materials prepared by the WSET ('The Book Online') provide all the factual information that a student needs, and distinction grades can be achieved with this alone, as long as the required skills are also sufficiently demonstrated. Examiners will give credit for factual information that goes beyond the WSET study materials, but this will not compensate for a failure to demonstrate the higher-level skills required at this level.

In addition to their factual recall, students must be able to demonstrate they can analyse, evaluate and create information. The knowledge and skills that will be assessed at each WSET qualification level are summarised below.



Each one of these learning skills will be assessed in the WSET Level 4 Diploma. This is reflected in the Learning Outcomes, Assessment Criteria, methods of assessment used, and the hours allocated to the qualification all of which are summarised in the newly developed Diploma Specification.

This document has been prepared to help you understand the educational approach WSET have taken.

Command Verbs

Every assessment criterion within a Specification uses command verbs to describe the skills and knowledge required to achieve it. Those who have completed the Educator Training Programme will be familiar with these verbs and how they correlate to the qualification levels 1–3.

The table below lists command verbs used in the Level 4 Diploma in Wines Learning Outcomes and Assessment Criteria as well as those commonly used in examination questions to test knowledge and skills.

	Command Verbs	Level 4 Assessment
Knowledge	define, describe, identify, name, give example, comment on,	Open-response examination questions
Comprehension	explain, outline, summarise	
Application	explain, give reasons	Tasting examinations
Analysis	analyse, compare, research, select	Research assignment
Evaluation	assess, conclude, evaluate, investigate, recommend	
Creation	create, produce, plan	Research assignment

Command Verbs used in Examinations for D1, 2, 3, 4 and 5

	Command verbs used in tasting examinations
Knowledge	define, describe
Comprehension	explain (how and why)
Application	explain (how and why), give reasons
Analysis	analyse, compare
Evaluation	evaluate, conclude

	Command verbs used in theory examinations
Knowledge	describe, identify, name, comment on, give example
Comprehension	Explain (how and why), outline
Application	Explain (how and why), give reasons
Analysis	Compare
Evaluation	Evaluate

The Examiners' Reports issued annually highlight several themes that consistently surface. The most common observation is that "students do not answer the question".

It is understandable that, in their assessment, candidates want to show the examiners how much knowledge they have, but when this is done by regurgitating learned material at the expense of answering the question set, it is counterproductive to their grade. At level 4, it is not sufficient to only recall facts: students must demonstrate higher-level skills too. The command verbs used in the questions will direct candidates to the skills they need to demonstrate when answering.

Examples of the Use of Command Verbs in Level 4 Open Response Examination Questions

This section shows how different command verbs can be used in example examination questions and gives guidance on how students could answer those questions.

The subject of sedimentation has been used to illustrate how one section of the D1 book could be used in different types of questions.

The examples given show the approach to be taken when answering questions containing command verbs. They provide guidance on how to answer and do not necessarily define what is a 'Pass' or any other grade. More details of grading are in the Specification.

Knowledge

Define: To specify meaning

To define, the student will have to set out **what** the meaning of a word or phrase **is**.

Q. What is sedimentation?

Sedimentation is a form of clarification. It is also sometimes called 'settling'. Suspended solids in must or wine are left to fall over time with gravity.

Describe: To set out characteristics

To describe something, the student will need to set out the characteristics of the subject. For example, they may be asked to write a detailed description of a process. The higher the level of relevant detail, such as correct temperatures, in the answer the higher the grade achieved.

Q. Describe the process of sedimentation.

Sedimentation is a form of clarification. The must is commonly chilled to around 4°C (39°F) in tank. The solids then fall to the bottom of the tank leaving a clear juice. This takes between 12–24 hours depending on the size of the tank used. The clear juice is transferred to the fermentation tank, leaving the sediment of solids at the bottom of the sedimentation tank.

Comment on: To state facts and give details on a given subject

These types of questions will combine definition and description of what sedimentation along with identification of what it is used for. Examples may also be required.

Q. Comment on the process of sedimentation.

Sedimentation is a form of clarification. It is also sometimes called 'settling'. Suspended solids in must or wine are left to fall over time with gravity.

The must is commonly chilled to around 4°C (39°F) in tank. The solids then fall to the bottom of the tank leaving a clear juice. This takes between 12–24 hours depending on the size of the tank used. The clear juice is transferred to the fermentation tank, leaving the sediment of solids at the bottom of the sedimentation tank.

Sedimentation can be used to clarify wines as well as must.

Sedimentation is the cheapest method in terms of equipment required and is the most traditional way to clarify must or wine. It is also a batch process, which, again, costs in labour and time. For these reasons, it is most commonly used for small-volume production of premium wines.

Comprehension

Explain: To give reasons (explain why) or to describe something so that it can be understood (explain how)

To explain something, the student will need to explain clearly and in detail **'how'** or **'why'** things work or came to be the way they are. An 'explain why' question will often require a description of what is done, how it is done and reasons why it is done in that way. An 'explain how' question will often require a detailed description of what is done and how it is done. There needs to be a clear connection between the description and the reasoning (the 'why' or 'how'), this can be best done by using connecting words or phrases such as *because.... therefore.... as a result...*

Q. Explain why the must is chilled during sedimentation.

Sedimentation is a form of clarification. It is also sometimes called 'settling'. Suspended solids in the must are left to fall over time with gravity. The must is commonly chilled to 4°C (39°F). This is **because** at low temperatures the rate of oxidation is reduced, **therefore** the must retains its freshness and **as a result** will retain its primary fruit characteristics.

Application

Apply: To use relevant knowledge in a new context

'Apply' is a command verb that is unlikely to appear in an examination paper as the context needs to be clear for a student to answer the question. If a question asked, 'Apply knowledge of wine making?' it would be very difficult to know what was required, where to start and where to finish. Application questions are more likely to be questions where **'how'** and **'why'** are used in the question, the questions will focus on the ability to make connections between options and product.

For the question below the student will need to apply knowledge of natural wine production aims to the sedimentation process and give reasons why the option would be used. Where applicable, students could give examples to support the reasons given.

Q. Explain why sedimentation is often the preferred clarification method of some natural wine producers.

Natural winemakers favour small-scale, artisan, traditional methods and reject modern interventions. The overall aim of the natural winemaker is 'nothing added, nothing removed'. However, if a wine has high levels of solids in the juice prior to fermentation there may be a negative impact on quality due to high levels of reductive sulfur compounds giving rotten egg aromas. Therefore, natural winemakers may still need to clarify juice prior to fermentation.

(The first paragraph defines natural winemaking and explains why a natural winemaker may choose to undertake clarification.)

Sedimentation is a form of clarification. Suspended solids in juice or wine are left to fall over time with gravity. This is also sometimes called 'settling' as the sediment will settle naturally at the bottom of the vessel. Sedimentation doesn't require the addition of chemicals or the use of modern specialist equipment. Other than chilling of the juice, sedimentation requires minimum intervention by the winemaker. It is the most traditional method of clarification used and suits those seeking to replicate winemaking of the past.

Sedimentation also suits the small production volumes that are made by many natural wine producers as it takes less time for small, short vessels than large, tall vessels.

(The second paragraph defines sedimentation, explains the process and makes connections to

reasons why it would be suitable for natural winemaking by using words and phrases such as 'natural' 'traditional', 'minimum intervention' and 'small production' which connect sedimentation to the aims of natural wine production.)

A natural winemaker would choose sedimentation because it is a traditional and natural process that requires minimum intervention without requiring anything to be added and it can be used for small volume production typical of natural wine production.

(The final paragraph concludes the answer by setting out the reasons why sedimentation would be the preferred choice of a natural winemaker.)

Application questions can be substantial, they test knowledge, comprehension and application, and can be part of a question that includes evaluation. Application questions requiring a shorter answer will also be used. These questions could direct students to focus on the reasons why only.

Q. Identify four reasons why a natural winemaker would choose sedimentation as a method of clarification.

A natural winemaker would choose sedimentation for the following reasons:

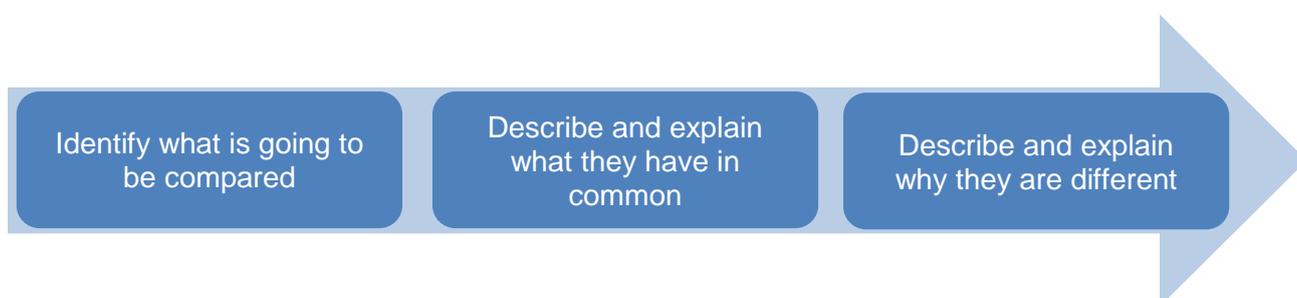
- 1. It is traditional method used for winemaking in the past **therefore** suits the natural wine ethos.*
- 2. It is a natural process which requires minimum intervention **because** it uses gravity to clarify wines.*
- 3. It does not require anything to be added to aid clarification which **therefore** suits the general ethos of natural wine production 'nothing added, nothing removed'.*
- 4. It is quicker when used on small tanks and **therefore** is suitable for the small volume production typical of natural wine production.*

Analysis

Compare: To identify similarities and differences

To compare, a student will be required to analyse what is the same and what is different about two or more subjects or processes. They will need to write about the similarities and differences between the subjects of the question, giving reasons for the similarities and differences in their answer. This will be done by writing answers as sentences using connecting words or phrases such as *however... although... yet... nevertheless... in contrast...* to make the comparison and by separating ideas into paragraphs. Bullet points would not be a suitable format.

A useful structure to follow when answering a compare question is set out below.



Q. Compare two different methods used to clarify juice prior to fermentation.

Identify them – Two methods used to clarify juice are sedimentation and centrifugation.

Describe what they have in common – Both methods are used in white wine production to remove suspended solids in juice prior to fermentation and will require the juice to be protected from oxygen during the clarification process.

Describe and explain how they are different – Each uses a different method to clear the must of solids. Sedimentation relies on gravity to allow the solids to fall to the bottom of the tank. The clear juice will then be racked into a new vessel. **In contrast** centrifugation uses a machine that comprises a rapidly rotating container which uses centrifugal force to separate the solids from the liquids.

Sedimentation is a cheaper process because it does not require additional specialist equipment or the purchase of additives, **whereas**, a centrifuge is expensive to buy.

Centrifugation is a continuous process which saves on time and labour. **In contrast** sedimentation times are between 12–24 hours and it requires additional labour to move the juice after clarification.

Sedimentation is a time-consuming batch process which works most effectively in small tanks therefore it is best suited to small volume production. **In contrast** centrifugation is continuous process suited to the processing of large volumes of must quickly for high volume production.

To minimise oxidation during sedimentation the juice will be chilled to around 4°C. **Although** centrifugation increases the must's exposure to oxygen the flushing of the machine with inert gas will minimise the risk.

Analysis questions are substantial: they test knowledge, comprehension, application and analysis.

Questions requiring shorter answers will also be used. These questions may direct students to focus on a limited number of differentiating or contrasting factors.

Evaluation

Evaluate: to judge the strengths and weaknesses and justify decisions.

To evaluate, students must state the strengths and weaknesses of something and may be required to explain how or why they are strengths or weaknesses. Often, questions will be set within a context and students will need to show that their evaluation is not biased. In addition, they may need to discuss the importance, value, quality, relevance and/or effectiveness of whatever is being discussed.

Answers to evaluation questions have multiple parts. A useful technique for answering these questions is set out in the graphic below:



Q. Evaluate the use of sedimentation as a method of clarification for high volume production of inexpensive white wines.

Describe (define/describe what it is you are evaluating) – Sedimentation is when the suspended solids in must or wine are left to fall over time with gravity. The must is commonly chilled to around 4°C (39°F) in a tank. The solids then fall to the bottom of the tank leaving behind a clear juice: this will take between 12–24 hours depending on the size of the tank used. The clear juice is transferred to the fermentation tank, leaving the sediment of solids at the bottom of the sedimentation tank.

Explain (explain why it is done) – The aim of sedimentation is to reduce the amount of suspended solids in the must. These solids include particles of grape skin, stem, and pips. If the amount of solids is too high it will cause problems during fermentation, such as increased production of hydrogen sulfide (aromas of rotten eggs).

Advantages (what are the advantages of sedimentation?)

- Gravity is free *therefore* there are no additional costs for clarifying agents.
- Sedimentation uses standard equipment *therefore* it does not require additional investment in specialist equipment which would add additional cost to production.

Disadvantages (what are the disadvantages of sedimentation?)

- Sedimentation can be a slow process, especially in large, tall tanks. This would *therefore* slow down production and tie up tank space, both of which are undesirable in high volume production.
- Chilling tanks over a long period of time could also be costly in terms of energy. *As a result*, this would raise costs, which would be undesirable for production of inexpensive wines.
- Sedimentation is a batch process and requires the juice to be moved to another tank for fermentation. This, again, would slow down production, and potentially require more labour, compared to other methods of clarification that can be set up to work continuously. It is *therefore* costly in terms of time and money.

Conclusion (judge the suitability of sedimentation as a clarification method for high-volume white wines and justify the opinion given)

Sedimentation may not be the most suitable method of production for a high-volume wine for several reasons.

Sedimentation is a relatively slow process, especially when used to clarify the large tanks of wine typical of high-volume production. Although gravity is free, chilling for an extended period is not, and this adds a cost to production.

Sedimentation requires manpower to move the juice from the sedimentation tank to the fermentation tank, which will also add a cost. The juice may also be at risk of oxidation during the transfer, adding an additional critical control point to be monitored.

In contrast, methods such as centrifuge and flotation are quick and efficient. The cost of the specialist machinery used for these methods can be recovered over a shorter amount of time with large-scale production, making them a viable alternative to sedimentation, which will be a recurring expenditure each year.

Evaluation questions are substantial: they test knowledge, comprehension, application, analysis and evaluation.

Questions requiring shorter answers will also be used. These questions may direct students to focus on the advantages and/or disadvantages only.

Creation

This has not been included in this document as the assessment of this skill is confined to the D6 Independent Research Assignment.