



The Extended Essay Guide

Earl Wooster High School

(EE HANDBOOK)

For students graduating 2018 and after



IB Mission Statement

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

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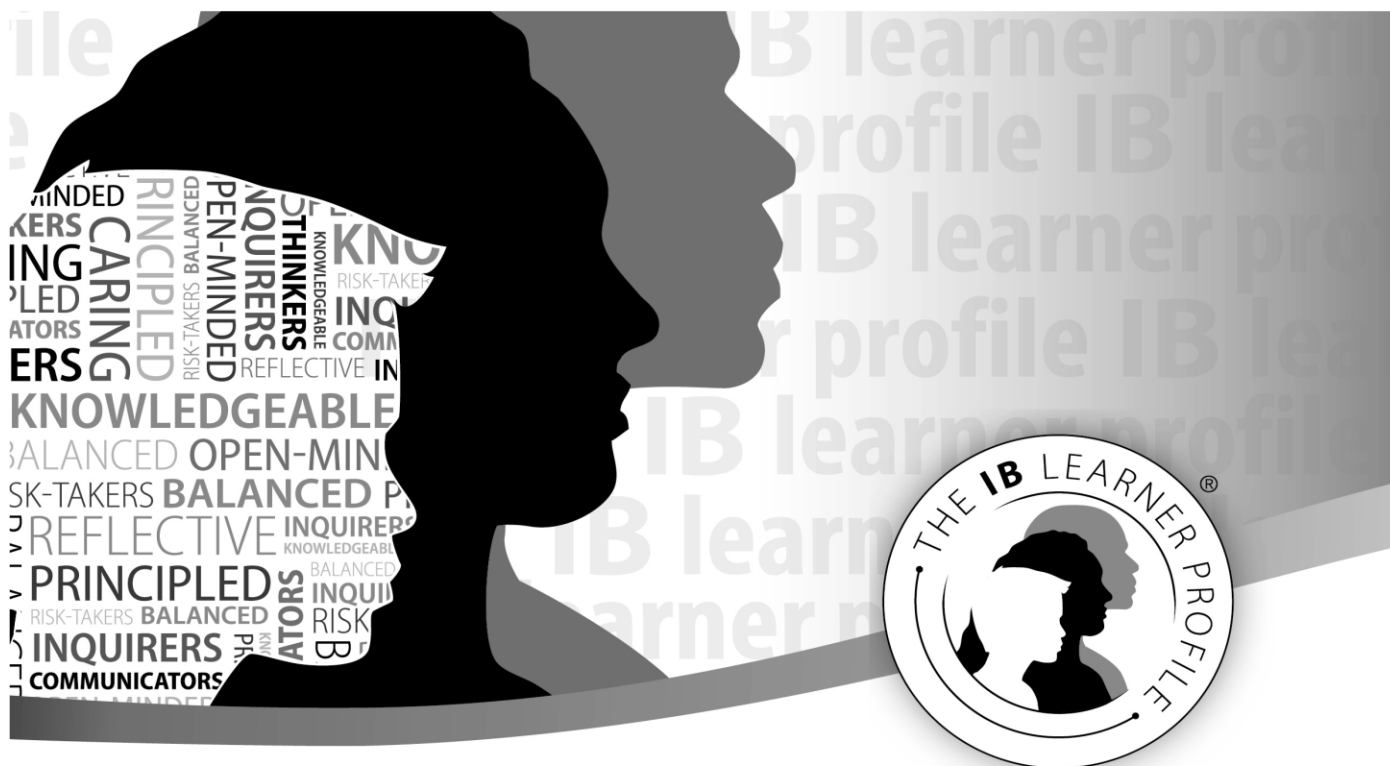
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IB learner profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

As IB learners we strive to be:

INQUIRERS

We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.

KNOWLEDGEABLE

We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.

THINKERS

We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.

COMMUNICATORS

We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.

PRINCIPLED

We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.

OPEN-MINDED

We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.

CARING

We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.

RISK-TAKERS

We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.

BALANCED

We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.

REFLECTIVE

We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

The IB learner profile represents 10 attributes valued by IB World Schools. We believe these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities.

Table of Contents

The Nature of the Extended Essay	Page 5
Ten Steps in Writing the Extended Essay	Pages 6 – 7
How/Where Do I Begin?	Pages 8 – 11
Suggestions from IB Extended Essay Examiners	Page 12
The Extended Essay General Rubric	Pages 13-16
Understanding the EE Criteria	Pages 17 – 18
Student Reflection in the EE	Page 19
Suggested Subject Categories	Pages 20 – 24
Extended Essay Checklist	Pages 25 – 26

The Nature of the Extended Essay

The extended essay is an in-depth study of a focused topic chosen from the list of available Diploma Programme subjects for the session in question. This is normally one of the student's six chosen subjects for those taking the IB diploma, or a subject that a course student has a background in. It is intended to promote academic research and writing skills, providing students with an opportunity to engage in personal research in a topic of their own choice, under the guidance of a supervisor (an appropriately qualified member of staff within the school). This leads to a major piece of formally presented, structured writing, in which ideas and findings are communicated in a reasoned and coherent manner, appropriate to the subject chosen. It is mandatory that all students undertake three reflection sessions with their supervisor, which includes a short, concluding interview, or *viva voce*, with their supervisor following the completion of the extended essay. An assessment of this reflection process is made under criterion E (Engagement) using the Reflections on planning and progress form. The extended essay is assessed against common criteria, interpreted in ways appropriate to each subject.

Key features of the extended essay

- The extended essay is compulsory for all students taking the Diploma Programme
- A student must achieve a D grade or higher to be awarded the Diploma.
- The extended essay is externally assessed and, in combination with the grade for theory of knowledge, contributes up to three points to the total score for the IB Diploma.
- The extended essay process helps prepare students for success at university and in other pathways beyond the Diploma Programme.
- The extended essay is a piece of independent research on a topic chosen by the student in consultation with a supervisor in the school.
- It is presented as a formal piece of sustained academic writing containing no more than 4,000 words accompanied by a reflection form of no more than 500 words.
- It is the result of approximately 40 hours of work by the student.
- Students are supported by a supervision process recommended to be 3–5 hours, which includes three mandatory reflection sessions.
- The third and final mandatory reflection session is the *viva voce*, which is a concluding interview with the supervising teacher.

Aims

The aims of the extended essay are for students to:

- engage in independent research with intellectual initiative and rigour
- develop research, thinking, self-management and communication skills
- reflect on what has been learned throughout the research and writing process.

Assessment of the extended essay

Assessment of the extended essay is a combination of formative assessment (the Reflections on planning and progress form) and summative assessment (the extended essay itself).

Generic assessment criteria are used with subject-specific interpretations.

Assessment Overview **Total marks available: 34**

Criterion A: focus and method	Criterion B: knowledge and understanding	Criterion C: critical thinking	Criterion D: presentation	Criterion E: engagement
<ul style="list-style-type: none">• Topic• Research question• Methodology	<ul style="list-style-type: none">• Context• Subject-specific terminology and concepts	<ul style="list-style-type: none">• Research• Analysis• Discussion and evaluation	<ul style="list-style-type: none">• Structure• Layout	<ul style="list-style-type: none">• Process• Research focus
Marks	Marks	Marks	Marks	Marks
6	6	12	4	6

Ten Steps in Writing the Extended Essay

1. Read the Extended Essay Subject Guide, **especially** pages 35-42, 59-93 and 112-115.
 - For subject specific guides see p116 (Language & Lit), p128 (Language Acquisition), p184 (History), p240 (Biology), p250 (Chemistry), p276 (Physics), p295 (Math), p325 (Music), p335 (Theatre), p343 (Visual Arts), p351 (Interdisciplinary essays)
2. Find a Subject Area
 - Have some interest in the general subject area.
 - Examine your interests, your background, and your major in college or the other courses you are studying.
 - Create a question. **The research question should be something you truly want to explore!**
3. Read a general article, do background reading in your topic area.
 - Read for ideas to help you limit your topic and possibly suggest some possible themes.
 - You should want to know more about some particular aspect of the subject you are researching.
 - You are not allowed to re-use material or topics from IB assessments that you have used in a subject.
 - History essays cannot deal with any topic that has taken place in the last ten years.
4. Formulate a **temporary thesis** (question) **and outline**
 - **DON'T** simply restate facts and opinions you have read from research.
 - The object is to explore possible answers and hypotheses.
 - A temporary thesis is a statement of truth, an opinion, a conclusion that you have read or you have reason to believe is true. (If you later discover the statement is invalid, discard it or alter it).
 - Limit your temporary thesis at the onset. The less you try to cover, the more depth you can explore.
 - Using a deductive process in your temporary thesis will suggest the points of your outline. It is the path you and your reader must follow before the conclusion can be stated as a valid thesis.
 - Your final thesis will be the result of research and will be a statement that you believe to be true.
5. Prepare the preliminary reference list
 - Sources: books, magazines, newspapers, Internet sites, library indexes, own labs, etc.
 - The purpose is to be sure that adequate information is available, to become familiar with the types of research that has been done on the topic, and to learn how your thesis may be further limited just by seeing the variety of titles.
 - Record your resources and be accurate as this is the key for your works cited bibliography page.
 - Learn how to use the "References" tab on Word. It will save you SO much time.
6. Write the rough draft
 - Check to be sure the thesis is as specific as possible.
 - Check the outline to be sure each topic is relevant to the thesis.
 - **Begin by writing the overall information, not the introduction. Write to the criteria of your subject. Don't try to fit the criteria to your paper.**
 - Remember to include evidence, reflection, arguments, counter arguments, and interpretation.
 - Support how your information relates, defends, or refutes your thesis.
 - Remember the rules for direct quotes, paraphrasing, and citing sources.
 - Save. Save. Save....in several places.
7. Revise the draft
 - The entire paper should be double-spaced. The essay should be between 3700 and a maximum of 4000 words. Quality, not quantity is required.
 - Create a header that includes: Pages should be numbered, have your student candidate number in the upper right hand corner, and include a shortened title (three important words from your RQ, or your title).
 - Check grammar: proper sentence structure, style, paragraph development, diction, smooth transitions, and unnecessary repetition of facts or ideas.
 - Use the subject area criteria and evaluate yourself. Make improvements where you detect weaknesses in each part of the criteria. **Use the subject specific rubrics!**
 - **Title** – The title is critical. It should be relevant but concise. The title should not be finalized until the essay has been written.

- **Introduction**- A good introduction is absolutely essential and must include a research question, a statement of purpose, or a hypothesis. Point out the value of your research – why the topic is interesting or important. Give background information to place topic in context. It is a shortened version of what your Extended Essay will discuss. It should be clear and concise with all items covered. The introduction should include the research question being investigated, the scope of the investigation, what was learned, and an insight into the line of argument. It may be multiple paragraphs.
- **Body** – This is the longest and the most important part of the Extended Essay. It is necessary both to develop and to substantiate the argument. The body must focus on the hypothesis, the development of the paper, the methods and results. Avoid irrelevant and/or trivial material. The body should be a progression toward an answer.

Form follows function – EXAMPLES OF HOW TO ORGANIZE A 4,000 WORD ESSAY:

- *The five-part essay*: support perspective
 - *Intro, point one, point two, point three*
- *The classic form*: reveal “Truth”
 - Intro, narration, confirmation, refutation and concession, summation
- *Toulmin*: beat other arguments/evidence
 - Intro (including qualifiers & claims), data, merits, factual backing, counter arguments/rebuttals, conclusion
- *Rogerian*: to find best shared solution
 - Intro, acknowledge opposition, thesis, support thesis, conclusion

- **Conclusion** – This is the most valuable single part of the paper. It must be clearly stated and must be relevant to the research question being asked. You must substantiate by the evidence presented and indicate issues, unresolved questions and new questions that have emerged from your research.

8. Add Title Page, Contents Page, References and Bibliography

- **Title Page** – The Title Page should include the title (centered), the candidate’s IB number, the subject area of Extended Essay, the session date (May 2018), and the Essay word count (not to exceed 4,000 words).
- **Contents Page**– Begin with the title of the essay and then design the table of contents, giving page numbers of the essay, including the introduction, subheadings or parts of the essay or even just the body, conclusion, works cities, consulted, and any appendices you may want to add. The contents page does not count toward your word count.
- **References and Bibliography** – How you have organized your sources will determine how you title this list – Works Cited, Bibliography, etc. Follow MLA format (or APA, or what you have been taught or are comfortable with). You are responsible for ensuring that your work is yours. Do not plagiarize or represent any part of the essay as yours if it is not. Cite your sources to ensure that you cannot be accused of malpractice and forfeit your IB Diploma. This page is not included in your total word count.

9. Proper Order

- Title page
- Table of Contents Page
- Introduction
- Body
- Conclusion
- References and bibliography
- Appendices, if added

10. Vive Voce

- You will present your Extended Essay before a panel at a determined time in January of your senior year.

SOURCE: Princess Anne Schools. (2014). Ten Steps in Writing the Extended Essay. Retrieved from http://www.princessannehs.vbschools.com/pdf/IB_TenStepsInWritingTheExtendedEssay.pdf

How/Where do I begin?

Developing a research question

- All students, regardless of the subject chosen, **must frame their research question as a question**.
- A hypothesis or statement of intent is **NOT** acceptable; a question helps you to retain focus throughout the essay.
- A research question is a **clear and focused** question centred on a research topic.
- Research questions usually emerge when questions are asked about a particular issue that you are interested in or curious about.
- A research question helps to focus the research, providing a path through which you will undertake the research and writing process. A clear and well-focused research question, which has a specific aim, will allow you to work towards developing a **reasoned argument** within the scope of the task, and **NOT** the kind of “all about” essay to which an unfocused research question can lead.
- Sometimes you may need to revise your research question; therefore, a research question should always be considered provisional until you have enough research data to make a reasoned argument.

**Supervisors should note that unfortunately the IB is unable to comment on the suitability of individual research questions. This is because the development of an appropriate research question forms part of the assessment. Should supervisors require support or advice with regard to possible research questions, the OCC extended essay forum is a good starting point.

Five steps to developing a research question

1. Choose a subject and topic that is of interest.

Deciding on a subject and topic that is of interest and in which you are personally invested is important if your motivation is to be sustained throughout the process. You should be able to identify, in a broad sense, what it is that you are interested in and why.

2. Carry out preliminary reading.

After deciding on a topic of interest you should undertake some general reading around the issue. Questions to consider at this stage are:

- What has already been written about this topic?
- Was it easy to find sources of information?
- Is there a range of different sources available?
- Is there a range of views or perspectives on the topic?
- What interesting questions have started to emerge from this reading?

3. Consider the emerging questions.

You should now begin asking open-ended questions about your general topic. These questions will usually be framed using the terms “how”, “why” or “to what extent”.

4. Evaluate the question.

Once possible research questions have been posed they should be evaluated. This evaluation should be based on whether the research question is clear, focused, and arguable.

- **Clear:** Will the reader understand the nature of my research? Will it direct the research being undertaken?
- **Focused:** Will the research question be specific enough to allow for exploration within the scope of the task (that is, the number of words and time available)?
- **Arguable:** Does the research question allow for **analysis**, **evaluation** and the development of a **reasoned argument**?

5. Consider research outcomes.

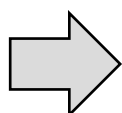
Once a provisional research question has been decided upon you should start thinking about the direction your research might take. This could be in terms of:

- suggesting possible outcomes of the research
- outlining the kind of argument they might make and how the research might support this
- considering options if the research available is not sufficient to support a sustained argument.

Sample research questions

The following table gives guidance on the difference between unclear and unfocused research questions and those that are appropriately clear and focused, lending themselves to in-depth research.

Unclear, unfocused and unarguable research questions	Clear, focused, narrow research questions lending themselves to in-depth research
What was the impact of Ho Chi Minh's allegiance to Lenin?	To what extent was nationalism the guiding factor in Ho Chi Minh's adoption of Leninism in 1920?
What is the history of Chinese theatre?	How does the legacy of Mei Lan Fang contribute to modern Jingju?
How important is chlorophyll to plant life?	What is the effect of different concentrations of kinetin on leaves aging and the biosynthesis of chlorophyll?
How can the US government's spending policy be reformed?	To what extent did the rising COE prices affect the demand for new and used cars by the consumer population and hence affect the revenue generated by the Singaporean economy for the period 2012–16?



An important note:

A question that is unclear or too broad will result in a narrative overview of the issue or event being discussed and provide little scope for analysis and reasoned argument. The result of this is that examiners will not be able to apply the range of marks available in the assessment criteria, particularly in relation to criterion C (critical thinking).

Writing the extended essay

The structure of the essay is very important. It helps students to organize the argument, making the best use of the evidence collected.

There are six required elements of the final work to be submitted. Please note that the order in which these elements are presented here is not necessarily the order in which they should be written.

Six required elements of the extended essay:

1. Title page
2. Contents page
3. Introduction
4. Body of the essay
5. Conclusion
6. References and bibliography

Title page

The title page should include **only** the following information:

- the title of the essay
- the research question
- the subject for which the essay is registered
 - if it is a language essay also state the category into which it falls;
 - if a world studies essay also state the theme and the two subjects utilized
- word count
- session (ex: May 2021)

An important note:

Please note that name of the student or the school should not appear on the title page or on any page headers. This is because the work is assessed anonymously.

The title

- The title of your essay should be a clear, focused summative statement of your research, which gives the reader an indication of your research topic.
- It should **NOT** be phrased as a research question.

Title	Research question:
Negative externalities of consumption: Australian policy on cigarette packaging.	How effective has the Australian policy of plain cigarette packaging been in reducing the negative externalities associated with the consumption of cigarettes in X?
Commodification and the body— an ethnographic study of social representations about the human body with relation to organ donation.	To what extent can we interpret the negative attitude from laymen towards organ donation as an act of resistance towards the demands of the hegemonic medical model?
An exploration of evil as a motivating force in drama.	How effectively does Christopher Marlowe present his view of evil in <i>Dr Faustus</i> ?
The feasibility of wireless networking in a city-wide context.	To what extent is wireless networking a feasible alternative to cabled networking within a whole-city context?

Contents page

A contents page must be provided at the beginning of the extended essay and all pages should be numbered. Please note that an index page is not required, and if included, will be treated as if it is not present.

Introduction

The introduction should tell the reader what to expect in the essay. The introduction should make clear to the reader:

1. the focus of the essay,
2. the scope of the research, in particular an indication of the sources to be used,
3. an insight into the line of argument to be taken.

While you should have a sense of the direction and key focus of your essay, it is sometimes advisable to finalize the introduction once the body of the essay is complete.

Body of the essay (research, analysis, discussion and evaluation)

The main task is writing the body of the essay, which should be presented in the form of a **reasoned argument**. The form of this varies with the subject of the essay but as the argument develops, it should be clear to the reader:

1. what relevant evidence has been discovered,
2. where/how it has been discovered
3. and how it supports the argument.

In some subjects, for example, the sciences, sub-headings within the main body of the essay will help the reader to understand the argument (and will also help you to keep on track).

In structuring your extended essay, you must take into consideration the expected conventions of the subject in which your extended essay is registered. Once the main body of the essay is complete, it is possible to finalize the introduction (which tells the reader what to expect) and the conclusion (which says what has been achieved, including notes of any limitations and any questions that have not been resolved).

Any information that is important to the argument **must not** be included in appendices or footnotes/endnotes. The examiner **will not** read notes or appendices, so an essay that is not complete in itself will be compromised across the assessment criteria.

Conclusion

The conclusion says what has been achieved, including notes of any limitations and any questions that have not been resolved. While you might draw conclusions throughout the essay based on your findings, it is important that there is a final, summative conclusion at the end. This conclusion(s) must relate to the research question posed.

References and bibliography

Students should use their chosen style of academic referencing as soon as they start writing. That way you are less likely to forget to include a citation. It is also easier than trying to add references at a later stage. For more information on this, refer to the guidelines in the IB document *Effective citing and referencing*.

Writing the essay takes time but if you have used your Researcher's reflection space and reflection sessions in a meaningful way you should be well prepared to develop your arguments.

Presentation

The extended essay should be written in a clear, correct and formal academic style, appropriate to the subject from which the topic is drawn. Given that the extended essay is a formally written research paper, it should strive to maintain a professional, academic look.

To help achieve this, the following formatting is **required**:

- the use of 12-point, readable font
- double spacing
- page numbering
- no candidate or school name on the title page or page headers.

Submitting the extended essay in the required format will help set the tone of the essay and will aid readability for on-screen assessment by examiners.

Word counts

- The upper limit is 4,000 words for all extended essays.

Please note: Examiners are instructed not to read or assess any material in excess of the word limit. This means that essays containing more than 4,000 words will be compromised across all assessment criteria. Given the holistic nature of the assessment criteria, students who write in excess of the word limit will self-penalize across all criteria. For example, in criterion B, any knowledge and understanding demonstrated beyond the 4,000-word limit will be treated as if it were not present; in criterion C, analysis, discussion or evaluation made beyond the 4,000-word limit will be treated as if the point had not been made.

Supervisors and students should be aware that the e-upload of extended essays will facilitate the automatic recognition of a cut-off point for assessment. Students should ensure that they remain within the word limit and should edit accordingly.

Please refer to the following guidance on what content should be included in the word count:

Included in the word count:	Not included in the word count:
The introduction	The contents page
The main body	Maps, charts, diagrams, annotated illustrations
The conclusion	Tables
Quotations	Equations, formulas and calculations
Footnotes and/or endnotes that are not references	Citations/references (whether parenthetical, numbered, footnotes or endnotes)
	The bibliography
	The <i>Reflections on planning and progress form</i>

Bottom Line:

An effective EE is a written analysis and reasoned argument that gives an answer to your research question. IT IS NOT a regurgitation of facts found in books and on the Internet.

Suggestions from IB Extended Essay Examiners

Examiners' reports frequently emphasize the following positive steps.

Recommended: things to do

Before starting work on the extended essay, students should:

- read the *SUBJECT SPECIFIC* assessment criteria
- read previous essays to identify strengths and possible pitfalls
- spend time working out the research question (imagine the finished essay)
- work out a structure for the essay/create an outline before beginning to write

During the research process, and while writing the essay, students should:

- start work early and stick to deadlines
- maintain a good working relationship with their supervisor
- construct an argument that relates to the research question
- use the library and consult librarians for advice
- record sources as they go along (rather than trying to reconstruct a list at the end)
- choose a new topic and a research question that **can** be answered if there is a problem with the original topic
- use the appropriate language for the subject
- let their interest and enthusiasm show

After completing the essay, students should:

- check and proofread the final version *carefully*

Examiners' reports also mention these things to be avoided at all costs.

Recommended: things to avoid

Students **should not** work with a research question that is too broad or too vague, too narrow, too difficult or inappropriate. A good research question is one that asks something worth asking and that is answerable within 40 hours/4,000 words. It should be clear what would count as evidence in relation to the question, and it must be possible to acquire such evidence in the course of the investigation. If a student does not know what evidence is needed, or cannot collect such evidence, it will not be possible to answer the research question.

In addition, students **should not**:

- forget to analyse the research question
- ignore the assessment criteria & the rubric
- collect material that is irrelevant to the research question
- use the Internet uncritically
- plagiarize
- merely describe or report (evidence must be **used** to support the argument) repeat the introduction in the conclusion
- cite sources that are not used.

One further piece of advice is as follows: the more background a student has in the subject, the better the chance he or she has of writing a good extended essay; choosing to write the extended essay in a subject that is not being studied as part of the Diploma Program often leads to lower marks.

The Extended Essay Rubric

The following pages are devoted to the Extended Essay ***General*** Rubric, and an explanation on how to understand each of the specific criteria, A-E. The Extended Essay ***General*** Rubric is included only to give you an idea of how the Extended Essay is evaluated overall. It is **absolutely mandatory** that you use the Extended Essay Rubric that is specific to your topic (ex: History specific EE rubric, or Biology Specific EE rubric). Each topic has different expectations. You do not want to risk a failing grade simply for not evaluating yourself with the proper rubric.

(This part intentionally left blank)

Extended Essay General Rubric (2018 on)

Criterion A: Focus and method

This criterion focuses on the topic, the research question and the methodology. It assesses the explanation of the focus of the research (this includes the topic and the research question), how the research will be undertaken, and how the focus is maintained throughout the essay.

Level	Descriptor of strands and indicators
0	The work does not reach a standard outlined by the descriptors below.
1-2	<p>The topic is communicated unclearly and incompletely.</p> <ul style="list-style-type: none"> Identification and explanation of the topic is limited; the purpose and focus of the research is unclear, or does not lend itself to a systematic investigation in the subject for which it is registered. <p>The research question is stated but not clearly expressed or too broad.</p> <ul style="list-style-type: none"> The research question is too broad in scope to be treated effectively within the word limit and requirements of the task, or does not lend itself to a systematic investigation in the subject for which it is registered. The intent of the research question is understood but has not been clearly expressed and/or the discussion of the essay is not focused on the research question. <p>Methodology of the research is limited.</p> <ul style="list-style-type: none"> The source(s) and/or method(s) to be used are limited in range given the topic and research question. There is limited evidence that their selection was informed.
3-4	<p>The topic is communicated.</p> <ul style="list-style-type: none"> Identification and explanation of the research topic is communicated; the purpose and focus of the research is adequately clear, but only partially appropriate. <p>The research question is clearly stated but only partially focused.</p> <ul style="list-style-type: none"> The research question is clear but the discussion in the essay is only partially focused and connected to the research question. <p>Methodology of the research is mostly complete.</p> <ul style="list-style-type: none"> Source(s) and/or method(s) to be used are generally relevant and appropriate given the topic and research question. There is some evidence that their selection(s) was informed. <p>If the topic or research question is deemed inappropriate for the subject in which the essay is registered no more than four marks can be awarded for this criterion.</p>
5-6	<p>The topic is communicated accurately and effectively.</p> <ul style="list-style-type: none"> Identification and explanation of the research topic is effectively communicated; the purpose and focus of the research is clear and appropriate. <p>The research question is clearly stated and focused.</p> <ul style="list-style-type: none"> The research question is clear and addresses an issue of research that is appropriately connected to the discussion in the essay. <p>Methodology of the research is complete.</p> <ul style="list-style-type: none"> An appropriate range of relevant source(s) and/or method(s) have been applied in relation to the topic and research question. There is evidence of effective and informed selection of sources and/or methods.

Criterion B: Knowledge and understanding

This criterion assesses the extent to which the research relates to the subject area/discipline used to explore the research question, or in the case of the world studies extended essay, the issue addressed and the two disciplinary perspectives applied, and additionally the way in which this knowledge and understanding is demonstrated through the use of appropriate terminology and concepts.

Level	Descriptor of strands and indicators
0	The work does not reach a standard outlined by the descriptors below.
1-2	<p>Knowledge and understanding is limited.</p> <ul style="list-style-type: none"> The selection of source material has limited relevance and is only partially appropriate to the research question. Knowledge of the topic/discipline(s)/issue is anecdotal, unstructured and mostly descriptive with sources not effectively being used. <p>Use of terminology and concepts is unclear and limited.</p> <ul style="list-style-type: none"> Subject-specific terminology and/or concepts are either missing or inaccurate, demonstrating limited knowledge and understanding.

3-4	<p>Knowledge and understanding is good.</p> <ul style="list-style-type: none"> The selection of source material is mostly relevant and appropriate to the research question. Knowledge of the topic/discipline(s)/issue is clear; there is an understanding of the sources used but their application is only partially effective. <p>Use of terminology and concepts is adequate.</p> <ul style="list-style-type: none"> The use of subject-specific terminology and concepts is mostly accurate, demonstrating an appropriate level of knowledge and understanding. <p>If the topic or research question is deemed inappropriate for the subject in which the essay is registered no more than four marks can be awarded for this criterion.</p>
5-6	<p>Knowledge and understanding is excellent.</p> <ul style="list-style-type: none"> The selection of source materials is clearly relevant and appropriate to the research question. Knowledge of the topic/discipline(s)/issue is clear and coherent and sources are used effectively and with understanding. <p>Use of terminology and concepts is good.</p> <ul style="list-style-type: none"> The use of subject-specific terminology and concepts is accurate and consistent, demonstrating effective knowledge and understanding.

Criterion C: Critical thinking

This criterion assesses the extent to which critical-thinking skills have been used to analyse and evaluate the research undertaken.

Level	Descriptor of strands and indicators
0	The work does not reach a standard outlined by the descriptors below.
1-3	<p>The research is limited.</p> <ul style="list-style-type: none"> The research presented is limited and its application is not clearly relevant to the RQ. <p>Analysis is limited.</p> <ul style="list-style-type: none"> There is limited analysis. Where there are conclusions to individual points of analysis these are limited and not consistent with the evidence. <p>Discussion/evaluation is limited.</p> <ul style="list-style-type: none"> An argument is outlined but this is limited, incomplete, descriptive or narrative in nature. The construction of an argument is unclear and/or incoherent in structure hindering understanding. Where there is a final conclusion, it is limited and not consistent with the arguments/evidence presented. There is an attempt to evaluate the research, but this is superficial. <p>If the topic or research question is deemed inappropriate for the subject in which the essay is registered no more than three marks can be awarded for this criterion.</p>
4-6	<p>The research is adequate.</p> <ul style="list-style-type: none"> Some research presented is appropriate and its application is partially relevant to the Research question. <p>Analysis is adequate.</p> <ul style="list-style-type: none"> There is analysis but this is only partially relevant to the research question; the inclusion of irrelevant research detracts from the quality of the argument. Any conclusions to individual points of analysis are only partially supported by the evidence. <p>Discussion/evaluation is adequate.</p> <ul style="list-style-type: none"> An argument explains the research but the reasoning contains inconsistencies. The argument may lack clarity and coherence but this does not significantly hinder understanding. Where there is a final or summative conclusion, this is only partially consistent with the arguments/evidence presented. The research has been evaluated but not critically.
7-9	<p>The research is good.</p> <ul style="list-style-type: none"> The majority of the research is appropriate and its application is clearly relevant to the research question. <p>Analysis is good.</p> <ul style="list-style-type: none"> The research is analysed in a way that is clearly relevant to the research question; the inclusion of less relevant research rarely detracts from the quality of the overall analysis. Conclusions to individual points of analysis are supported by the evidence but there are some minor inconsistencies. <p>Discussion/evaluation is good.</p> <ul style="list-style-type: none"> An effective reasoned argument is developed from the research, with a conclusion supported by the evidence presented. This reasoned argument is clearly structured and coherent and supported by a final or summative conclusion; minor inconsistencies may hinder the strength of the overall argument. The research has been evaluated, and this is partially critical.

10-12	The research is excellent. <ul style="list-style-type: none"> The research is appropriate to the research question and its application is consistently relevant.
	Analysis is excellent. <ul style="list-style-type: none"> The research is analysed effectively and clearly focused on the research question; the inclusion of less relevant research does not significantly detract from the quality of the overall analysis. Conclusions to individual points of analysis are effectively supported by the evidence. Discussion/evaluation is excellent. <ul style="list-style-type: none"> An effective and focused reasoned argument is developed from the research with a conclusion reflective of the evidence presented. This reasoned argument is well structured and coherent; any minor inconsistencies do not hinder the strength of the overall argument or the final or summative conclusion. <p>The research has been critically evaluated.</p>

Criterion D: Presentation

This criterion assesses the extent to which the presentation follows the standard format expected for academic writing and the extent to which this aids effective communication.

Level	Descriptor of strands and indicators
0	The work does not reach a standard outlined by the descriptors below.
1-2	Presentation is acceptable. <ul style="list-style-type: none"> The structure of the essay is generally appropriate in terms of the expected conventions for the topic, argument and subject in which the essay is registered. Some layout considerations may be missing or applied incorrectly. <p>Weaknesses in the structure and/or layout do not significantly impact the reading, understanding or evaluation of the extended essay.</p>
3-4	Presentation is good. <ul style="list-style-type: none"> The structure of the essay clearly is appropriate in terms of the expected conventions for the topic, the argument and subject in which the essay is registered. Layout considerations are present and applied correctly. The structure and layout support the reading, understanding and evaluation of the extended essay.

Criterion E: Engagement

This criterion assesses the student's engagement with their research focus and the research process. It will be applied by the examiner at the end of the assessment of the essay, and is based solely on the candidate's reflections as detailed on the RPPF, with the supervisory comments and extended essay itself as context.

Level	Descriptor of strands and indicators
0	The work does not reach a standard outlined by the descriptors below.
1-2	Engagement is limited. <ul style="list-style-type: none"> Reflections on decision-making and planning are mostly descriptive. These reflections communicate a limited degree of personal engagement with the research focus and/or research process.
3-4	Engagement is good. <ul style="list-style-type: none"> Reflections on decision-making and planning are analytical and include reference to conceptual understanding and skill development. These reflections communicate a moderate degree of personal engagement with the research focus and process of research, demonstrating some intellectual initiative.
5-6	Engagement is excellent. <ul style="list-style-type: none"> Reflections on decision-making and planning are evaluative and include reference to the student's capacity to consider actions and ideas in response to challenges experienced in the research process. These reflections communicate a high degree of intellectual and personal engagement with the research focus and process of research, demonstrating authenticity, intellectual initiative and/or creative approach in the student voice.

****For help with Criterion E: Engagement, See "Student Reflection in the EE", p19.**

Understanding the EE criteria

The following is intended to help you understand each criterion in terms of what should be included in the extended essay to achieve the highest level.

Criterion	Understanding the criterion
A: Focus and Method	<p>This criterion focuses on the topic, the research question and the methodology. It assesses the explanation of the focus of the research (this includes the topic and the research question), how the research will be undertaken, and how the focus is maintained throughout the essay.</p> <ol style="list-style-type: none"> The topic chosen is identified and explained to readers in terms of contextualizing and justifying its worthiness. <ul style="list-style-type: none"> How well does the research paper identify and communicate the chosen topic? The purpose and focus of the research to be addressed is within the scope of a 4,000-word extended essay, is outlined in the introduction and specified as a research question. <ul style="list-style-type: none"> Is the research question appropriate given the scope of the task? For example, is the topic sufficiently focused to be adequately addressed within the requirements of the task? Is the research question clearly stated, focused and based on/situated against background knowledge and understanding of the chosen subject/topic area? Is the focus of the research question maintained throughout the essay? The research is planned and appropriate methods of data collection (methodology) are chosen and identified in order to address the research question. <ul style="list-style-type: none"> Is there evidence of effective and informed source/method selection with regard to the choice of appropriate sources and/or method(s) used to gather information, including narrowing of scope the range of sources/methods, in order to address the research question within the constraints of the word limit? Sources/methods are considered relevant/appropriate or sufficient in so far as the academic standards for the discipline are concerned. For example, for an economics essay, it would not be sufficient to only use textbooks but rather include reports and data. There is no consideration of the research question as such.
B: Knowledge and Understanding	<p>This criterion assesses the extent to which the research relates to the subject area/discipline used to explore the research question, or in the case of the world studies extended essay, the issue addressed and the two disciplinary perspectives applied, and additionally the way in which this knowledge and understanding is demonstrated through the use of appropriate terminology and concepts.</p> <ol style="list-style-type: none"> The research question being investigated is put into the context of the subject/discipline/issue. <ul style="list-style-type: none"> Demonstration of the appropriate and relevant selection and application of the sources is identified. Knowledge and understanding of the topic chosen and the research question posed is demonstrated with appropriate subject-specific terminology. <ul style="list-style-type: none"> The use of subject-specific terminology and/or concepts is an indicator of knowledge and understanding of the discipline(s)/issue discussed. Sources/methods are assessed here in terms of their appropriateness to the research question.

<p>C: Critical Thinking</p>	<p>This criterion assesses the extent to which critical thinking skills have been used to analyse and evaluate the research undertaken.</p> <ol style="list-style-type: none"> 1. The selection and application of the research presented is relevant and appropriate to the research question. 2. The appropriateness of sources/methods in terms of how they have been used in the development of the argument presented. 3. The analysis of the research is effective and focused on the research question. 4. The discussion of the research develops a clear and coherent reasoned argument in relation to the research question. 5. There is a critical evaluation of the arguments presented in the essay. <p>Unlikely or unexpected outcomes can also demonstrate critical thinking.</p>
<p>D: Presentation</p>	<p>This criterion assesses the extent to which the presentation follows the standard format expected for academic writing and the extent to which this aids effective communication.</p> <ol style="list-style-type: none"> 1. Structure: the structure of the essay is compatible with the expected conventions of a research paper in the subject for which the essay has been submitted. (Examiners, supervisors and students are advised to check the guidance given in the <i>Extended essay guide</i> for the relevant subject.) 2. Layout: title page, table of contents, page numbers, section headings (where appropriate), effective inclusion of illustrative materials (tables, graphs, illustrations, appropriately labelled) and quotations, bibliography and referencing. <ul style="list-style-type: none"> ○ The referencing system should be correctly and consistently applied and should contain the minimum information as detailed in the <i>Extended essay guide</i>.* ○ The extended essay has not exceeded the maximum word limit.** <p>* If referencing does not meet this minimum standard work should be considered as a case of possible academic misconduct.</p> <p>** If the essay exceeds 4,000 words, examiners should not read or assess beyond the maximum 4,000-word limit. Students who exceed the word limit will compromise the assessment of their extended essay across all criteria. For example, in criterion B, any knowledge and understanding demonstrated beyond the 4,000-word limit will be treated as if it were not present; in criterion C, any analysis, discussion or evaluation made beyond the 4,000-word limit will be treated as if the point had not been made. Given the holistic nature of the assessment criteria, students who write in excess of the word limit will self-penalize across all criteria.</p>
<p>E: Engagement</p>	<p>This criterion assesses the student's engagement with their research focus and the research process. It will be applied by the examiner at the end of the assessment of the essay, after considering the student's <i>Reflections on planning and progress form</i>.</p> <ol style="list-style-type: none"> 1. Engagement with the process: the student has engaged in discussions with their supervisor in the planning and progress of their research; the student is able to reflect on and refine the research process, and react to insights gained through the exploration of their research question; the student is able to evaluate decisions made throughout the research process and suggest improvements for their own working practices. 2. Engagement with their research focus: an insight into the student's thinking, intellectual initiative and creative approach through reflections on the thought and research process; the extent to which the student voice is present rather than that of the supervisor and academics; is the student's engagement reflected?

Student reflection in the EE

In critically reviewing your engagement in the research process, it might help to think in terms of three levels of reflection: descriptive, analytical and evaluative reflection. The table below gives examples of guiding questions to help with this. They are not exhaustive.

Level of reflection	Example of the kinds of questions students may have asked and answered of themselves
Descriptive	<ul style="list-style-type: none">• What did I do?• How did I undertake my research?• What were the problems I faced?• Did my approach or strategies change throughout the process?• What have been the high and the low points of the research and writing process?
Analytical	<ul style="list-style-type: none">• Was my research successful?• If I changed my approach or strategies during the process, why did I do this?• What did I learn from the experience in terms of my understanding of the subject area and/or the skills needed to undertake research?• How has my understanding of the topic and research process developed throughout the task?
Evaluative	<ul style="list-style-type: none">• If I were to undertake this research again, would I do it differently—if so, why or why not?• What has affected this?• If I did do the research again, would I change the theories applied or the methodological approach? Would this have led to a different outcome?• What can I conclude from this?• Were the strategies I used for undertaking my research the most appropriate for achieving my outcomes?• What, if any, questions emerged as a result of my research that I was not expecting? Would these questions influence my approach if I were to undertake the research again?

These levels correspond to the attainment levels of the rubric for criterion E (engagement).

Extended Essays – Suggested Subject Categories

NOTE: It is strongly suggested that you do **NOT** write an Extended Essay that is categorized in a subject that you have **NOT** taken as a class. For example, an acceptable EE in psychology is extremely difficult to do without the understanding of how to analyze and evaluate case studies.

Here is IB's cautionary statement for Psychology (found in the psychology specific section of the EE guide):

Treatment of the topic

Students submitting extended essays in psychology must be fully aware that the discipline has its own unique terms, methods, ethical standards and evaluative commentary. Students should not attempt to prepare an extended essay in psychology in they have not studied the subject formally. The type of knowledge and analytical skills required for a psychology extended essay are best developed through direct learning experiences derived from the Diploma Programme psychology course.

***There are other subjects that have a similar warning; therefore, **MAKE SURE YOU READ THE SUBJECT GUIDE** for your particular subject and that you use the specific rubric for your subject.

What follows is only a **VERY BRIEF SELECTION OF AVAILABLE INFORMATION!!**

HISTORY - An extended essay in history (including Islamic history) provides students with an opportunity to undertake in-depth research in an area of history of genuine interest to them.

The outcome of the research should be a coherent and structured essay that effectively addresses a particular issue expressed as a research question, or, if this is unsuitable, a hypothesis. Students writing their extended essay in history are strongly advised to use a research question.

The topic chosen must focus on the human past, be worthy of study, and lend itself to systematic investigation in line with the published assessment criteria. **Essays that focus on events of the last 10 years are not acceptable, as these are regarded as current affairs, not history.** It is not a requirement for the topic to be chosen from the Diploma Programme history course, but it must be acceptable to the supervisor. It should provide an opportunity for critical analysis of source material, and not depend on summarizing general secondary sources (such as textbooks and encyclopedias), as this approach is likely to lead to an essay that is essentially narrative or descriptive.

The topic chosen must be suitable for effective treatment within the 4,000-word limit, so those that cover many aspects of history, and/or a long time period, are unlikely to produce successful essays. Narrowing the scope of the essay will help to ensure a clear focus, and will also allow students to demonstrate detailed and specific historical knowledge, understanding and critical analysis.

PSYCHOLOGY – An extended essay in psychology provides students with an opportunity to investigate an area within the field of psychology that is based upon personal interest, and which may well go beyond the Diploma Programme psychology course. Students are able to pursue actively a research question that will develop their analytical and communication skills, and their understanding of behaviour. At the same time, the extended essay aims to introduce students to the excitement of academic discovery.

The current *Psychology guide* defines the nature of the subject as “the systematic study of behaviour and experience”. Students should have a well-developed understanding of what falls within the scope of psychology when they are developing their topic. Psychology involves studying the behaviour of human as well as non-human animals. It has its own specialist terms, methods and literature. It is essential for students undertaking an extended essay in psychology to have a reasonable understanding of the subject and its methodologies. **Psychology is not a “residual” category for essays that do not fit into any other extended essay subject. Students must choose topics that lend themselves to psychological investigation and analysis, and must carefully consider their choice of topic in terms of the assessment criteria.**

An extended essay in psychology allows students to investigate a topic of personal interest in a systematic manner. The essay should be based on a well-focused research question that the student attempts to answer throughout the essay. The essay should be considered more of an investigative, analytical argument.

LANGUAGE A – A group 1 extended essay is intended for students who are writing in their best language (that is, students who could offer the language in question as a language A). The essay must be written in the language for which it is registered. Students studying a group 2 language who are interested in writing about the literature of that language should read the “Group 2” section. It is intended that students should not submit a group 1 extended essay in their group 2 language.

There are 3 categories of group 1 extended essays:

- Category 1—Studies of a literary work(s) originally written in the language in which the essay is presented
- Category 2—Studies of a literary work(s) originally written in the language of the essay compared with literary work(s) originally written in another language
- Category 3—Studies in language.

Students should put the category in which they have presented their essay alongside the subject in which it is registered on the cover sheet of the extended essay (i.e.: English A Cat: 2)

Categories 1 and 2 – Literature: literary works of address philosophical, political or social questions; however, the major focus of the essay should be the literary treatment of such questions. Students should not use the extended essay solely as a vehicle for their own thoughts, but, after providing careful analysis of the author’s ideas, should present their personal views on the way the author has treated the subject.

Category 3 – Studies in language: whatever area of language study the students chooses for their extended essay they will need to give focus and critical attention to the text(s) being considered. Students are encouraged to adopt an analytical, critical position, and to show awareness of conflicting viewpoints on texts and their meaning in a wider social context. Straightforward descriptive essays are inappropriate.

LANGUAGE B - A group 2 extended essay is intended for students who are studying a second modern language. Students may **not** write a group 2 extended essay in a language that they are offering as a language A for their diploma.

There are 3 categories of group 2 extended essays:

- Category 1—Language
- Category 2—Culture and society (a or b)
- Category 3—Literature.

Students should put the category in which they have presented their essay alongside the subject in which it is registered on the cover sheet of the extended essay (i.e.: Spanish B Cat: 1). The essay should consist of the study of an issue in one of the three categories, or a combination thereof. Each category has specific requirements.

A group 2 extended essay provides students with the opportunity to develop their awareness and knowledge of the language studied, and their understanding of the culture concerned. This is achieved by enabling students to pursue their interest in the language through research based on texts (taken to be any meaningful piece of spoken or written language, for example, an article, a book, a play, a poem) or on specific cultural artifacts (such as works of fine art or architecture, films, radio or television programmes, or popular music).

The extended essay must be written in the language for which it is registered (the target language). It must be focused on matters related to the target culture.

The extended essay is a **research essay** and the assessment criteria emphasize the importance of research skills rather than linguistic proficiency. Although a certain level of ability in the language is obviously desirable in order to undertake a group 2 extended essay, fluency is neither a prerequisite nor a guarantee of success. In fact, students who are fluent in the language but who do not demonstrate the required research skills will definitely achieve a lower mark than students who are less fluent but who fulfill the other assessment criteria.

The student should demonstrate an understanding of the issues raised by the research question and offer an objective, balanced analysis of these issues. The essay must be presented as a coherent argument, supported by relevant examples. Essays that are simply descriptive are unlikely to achieve a high mark.

MATHEMATICS - An extended essay in mathematics provides students with an opportunity to demonstrate an appreciation of any aspect of the subject, whether it is:

- the applicability of mathematics to solve both real and abstract problems
- the beauty of mathematics as in, for instance, geometry or fractal theory
- the elegance of mathematics in the proving of theorems as in, for example, number theory
- the origin and subsequent development of a branch of mathematics over a period of time, measured in tens, hundreds or thousands of years
- the links between different branches of mathematics and the powerful structures that enable many seemingly different problems to be solved by a single theory
- the way that a branch of mathematics has been born, or has flourished, as a result of technology.

These are just some of the many different ways that mathematics can be enjoyable or useful, or, as in many cases, both. Students may choose mathematical topics from fields such as engineering, the sciences or the social sciences, as well as from mathematics itself. Statistical analyses of experimental results taken from other subject areas are also acceptable, provided that they focus on the modelling process and discuss the limitations of the results; such essays should not include extensive non-mathematical detail. A topic selected from the history of mathematics may also be appropriate, provided that a clear line of mathematical development is demonstrated. Concentration on the lives of, or personal rivalries between, mathematicians would be irrelevant and would not score highly on the assessment criteria.

VISUAL ARTS – An extended essay in visual arts provides students with an opportunity to undertake research in an area of the visual arts of particular interest to them.

The outcome of the research should be a coherent and structured piece of writing (with appropriate illustrations) that effectively addresses a particular issue or research question, appropriate to the visual arts (broadly defined also to include architecture, design and contemporary forms of visual culture). The research may be generated or inspired by the student's direct experience of artwork, craftwork or design, or interest in the work of a particular artist, style or period. This might be related to the student's own culture or another culture. Personal contact with artists, curators and so on is strongly encouraged, as is the use of local and/or primary sources.

Absolute reliance on textbooks and the internet is discouraged and no extended essay in visual arts should be based exclusively on such sources. Textbooks should be consulted only insofar as they may stimulate original ideas, provide models of disciplined, structured and informed approaches, and encourage direct and personal involvement with the essay topic. Topics that are entirely dependent on summarizing general secondary sources (such as universal art history textbooks, and encyclopedias), and topics that are likely to lead to an essay that is essentially narrative or descriptive in nature, should be avoided. Biographical studies of artists must address a relevant issue or research question and arrive at a particular, and preferably personal, conclusion. Choosing a topic that covers many aspects of art history and/or a long period of time is also unlikely to result in a successful essay. Restricting the scope of the essay will help to ensure a clear focus and will provide opportunities for demonstrating detailed understanding and critical analysis.

MUSIC – An extended essay in music provides students with an opportunity to undertake in-depth research into a topic of genuine interest to them.

The student is encouraged to develop and explore, in a disciplined and imaginative way, a research question appropriate to the subject. The outcome of the research should be a coherent and structured piece of writing that effectively addresses a particular issue or research question and arrives at a particular, and preferably personal, conclusion. **Real music** should be at the heart of an extended essay in music. This means that particular pieces of music, experienced via recordings, live performances or concerts, should be chosen as the core focus of the extended essay.

Students should strive for a coherent verbal analysis and interpretation of **one or more pieces of music** in relation to the chosen research question. Absolute reliance on textbooks and the internet is discouraged and no extended essay in music should be based exclusively on such sources. Textbooks should be consulted only insofar as they may stimulate original ideas, provide models of disciplined, structured and informed approaches, and encourage direct and personal involvement with the essay topic.

THEATRE – An extended essay in theatre provides students with an opportunity to undertake independent research into a topic of their choice, to apply a range of skills in order to develop and explore a focused research question appropriate to theatre in an imaginative and critical way, and to test and validate their research by considering its effect on the practice of the investigated theatre form.

Owing to the composite nature of theatre, students may choose to take an interdisciplinary approach in their research. Whatever approach they choose, it is important to frame an appropriately focused research question. It is the task of the supervisor to ensure that the research question leads the student along a path that uses appropriate theatrical sources and that encourages the application of relevant theatrical concepts, theories or ideas.

The essay topic may relate to an area of the Diploma Programme theatre course, but this is not a requirement and other areas of the subject may be explored. It is important that the topic reflects the student's particular interest and enthusiasm within the subject area.

WORLD STUDIES – An extended essay in world studies provides students with an opportunity to undertake an in-depth interdisciplinary study of an issue of contemporary global significance. Students should choose to explore a topic from one of the following global themes:

- Language, culture and identity
- Science, technology and society
- Equality and inequality
- Conflict peace and security
- Economic and/or environmental sustainability
- Health and development

Many topics are potentially suitable; however, the chosen topic must address both an issue of global significance, and invite an interdisciplinary approach. The most successful topics reveal connection between specific and/or local places, people, phenomena or experiences, and the larger global framework in which they take place. Topics must invite a critical examination of the issue in light of relevant theories, methods and arguments in two or more subjects. When choosing a topic, it is important for student to bear in mind that it must encourage analysis and evaluation rather than description and unsupported value judgments.

It is expected that students will have a good grounding in at least one of the IB Diploma Programme subjects used in the essay. If they are unfamiliar with a discipline used, they must access the relevant syllabus for that subject and be able to identify concepts and modes of thinking used in the essay. The student's supervisor should be appropriately qualified to give advice in at least one of the subjects used by the student. If other subjects are touched upon in the essay and there are appropriate subject specialists available in the school, students are encouraged to consult them about research, concepts and approaches. However, each student should only have one main supervisor who takes on the role as outlined in the introduction of this guide and who signs the extended essay coversheet.

BIOLOGY – An extended essay in biology provides students with an opportunity to apply a range of skills while researching a topic of personal interest in the field of biology. Biology is the science that deals with living organisms and life processes. A biology EE should incorporate biological theory and emphasize the essential nature of this subject.

The topic must allow an approach that relates specifically to biology. **Where a topic can be approached from different viewpoints, the treatment of the material must be clearly biological. For example, an EE in an interdisciplinary area such as biochemistry will, if registered under the subject of biology, be judged solely on its biological content.**

Essays that deal with human diseases can often be dealt with from a number of perspectives, such as biological, medical, social or economic. Such essays should focus on biological aspects of the disease rather than on medical diagnosis and treatment.

Similarly, essays that deal with sports physiology and physical fitness must have a clear biological emphasis. They must explore the issues from a biological viewpoint and provide biological explanations for the results.

CHEMISTRY – An extended essay in chemistry provides students with an opportunity to investigate a particular aspect of the materials of our environment. Such extended essays must be characterized by a particular chemical emphasis within a more general set of research criteria.

The outcome of the research should be a coherent and structured piece of writing that effectively addresses a particular issue or research question and arrives at a particular, and preferably personal, conclusion. It is important that the extended essay has a clear chemical emphasis and is not more closely related to another subject. Chemistry is the science that deals with the composition, characterization and transformation of substances. A chemistry extended essay should, therefore, incorporate chemical principles and theory, and emphasize the essential nature of chemistry, relating to the study of matter and of the changes it undergoes. Although the same assessment criteria apply to all extended essays, for an extended essay submitted in chemistry the topic chosen must allow an approach that distinctly involves chemistry. Where a topic might be approached from different viewpoints, the treatment of the material must be approached from a chemistry perspective. For example, an extended essay in an interdisciplinary area such as biochemistry will, if registered as a chemistry extended essay, be judged on its chemical content, not its biological content.

PHYSICS - An extended essay in physics provides students with an opportunity to apply a range of skills while researching a topic of personal interest in the field of physics. A physics extended essay is characterized by a particular emphasis on physics within a more general set of scientific criteria. An extended essay in physics must take the form of a research paper involving a hypothesis or a model, or a critical analysis that demonstrates argumentation, comparison, or the extraction of relevant information or data. The outcome of the research should be a coherent and structured piece of writing that effectively addresses a particular issue or research question and arrives at a particular, and preferably personal, conclusion. It is important that the extended essay has a clear emphasis on physics and is not more closely related to another subject. A physics extended essay should, therefore, have a basis in physical theory and emphasize the essential nature of the subject. An extended essay in an interdisciplinary area such as materials science will, if registered as a physics extended essay, be judged on its physics content, not its chemical content. The purpose of the essay is not principally to inform the reader about a specific topic, nor should it be a summary of the latest discoveries in physics. The student must be personally involved with the subject matter and not simply an informant. The topic should represent a challenge for the student. Some topics may be unsuitable for investigation because of safety issues. For example, experiments involving dangerous or carcinogenic substances, radioactive materials, lasers, microwaves, UV light, noise or heavy equipment should be avoided unless adequate safety apparatus and qualified supervision are available. Typical experiments done in class, not suitable in themselves as a basis for an extended essay, can be a source of good topics.

Extended Essay Checklist

Use the following checklist to help you meet the IB General Assessment Criteria.

Extended Essay Assessment Criteria

A – Focus and method: (6 points possible)

- ___ I have effectively identified and explained my research topic
- ___ My purpose and focus is clear and appropriate
- ___ My research question is clear and addresses an issue that is connected to my discussion in my essay.
- ___ I have used an appropriate range of relevant source(s) and/or method(s).
- ___ I have shown evidence of an effective and informed selection of source(s) and/or method(s).

B --The Knowledge and understanding: (6 points possible)

- ___ I have selected source materials that are clearly relevant and appropriate to the research question.
- ___ My knowledge of the topic/discipline(s)/issue is clear and coherent and sources are used effectively and with understanding.
- ___ My use of subject-specific terminology and concepts is accurate and consistent, and demonstrates effective knowledge and understanding.

C – Critical thinking (ANALYSIS AND EVALUATION): (12 points possible)

- ___ My research is appropriate to the research question and its application is consistently relevant.
- ___ My research is clearly focused.
- ___ My research has been critically evaluated.
- ___ My research has been analysed effectively.
- ___ My reasoned argument is developed, focused and effective.
- ___ My reasoned argument is well structured and coherent.
- ___ My conclusion is reflective of the evidence presented.
- ___ I have not included irrelevant information in my essay.
- ___ I have not written a “narrative” report, but instead presented an argument, analyzed sources and came to a conclusion that answers my question.
- ___ My essay is a convincing argument that addresses my research question.

D – Presentation: (4 points possible)

- ___ The structure of the essay clearly is appropriate in terms of the expected conventions for the topic, the argument and subject in which the essay is registered.
- ___ Layout considerations are present and applied correctly.
- ___ The structure and layout support the reading, understanding and evaluation of the extended essay.

E – Engagement: (6 points possible)

- ___ My reflections on decision-making and planning are evaluative and include reference to the student’s capacity to consider actions and ideas in response to challenges experienced in the research process
- ___ My reflections communicate a high degree of intellectual and personal engagement with the research focus and process of research, demonstrating authenticity, intellectual initiative and/or creative approach.

Additionally:

- ___ I have a title page clearly stating my **title**, my **research question**, the **subject** of my extended essay (and in the case of languages, the category and world studies, the theme and the two subjects), **word count**, the **session** and my **candidate #**
- ___ Papers are in this order: Title Page, Table of Contents, Body, Works Cited (and Appendix but only if absolutely necessary)
- ___ Each page of my essay is correctly numbered and includes my candidate number either in the header or footer.
- ___ I have accurately and consistently cited all my sources in an accepted format.
- ___ I have included either a bibliography or a works cited page in an accepted format.

Format: MLA/APA or another proper format consistently done.

- ARIEL size 12 font
- 1 inch margins
- Double-spaced
- Numbered pages

THE ESSAY (in this order):

Cover sheet w/:

- Title
- Research Question
- Session (May 2019)
- Word Count
- IB Subject (if World Studies it must contain the strand you selected, such as “Science, technology and Society”)

Table of contents

- Labeled as such as the top.
- No generic titles except maybe for “Introduction”, “Conclusion” and “Works Cited”. Be specific with the other sections
- Give exact page numbers

The Body of the Essay

- Should be broken down into sections that are logical, coherent and labeled.

Works Cited Page

- Labeled as such at the top.

Appendix

- Only if absolutely necessary

Extended Essay Checklist (cont.)

The introduction should tell the reader what to expect in the essay. The **introduction** should make clear to the reader the **focus of the essay**, the **scope of the research**, in particular an indication of the sources to be used, and **an insight into the line of argument to be taken**.

While students should have a sense of the direction and key focus of their essay, it is sometimes advisable to finalize the introduction once the body of the essay is complete.

Body of the essay (research, analysis, discussion and evaluation): The main task is writing the body of the essay, which should be presented in the form of a reasoned argument. The form of this varies with the subject of the essay but as the argument develops it should be clear to the reader what relevant evidence has been discovered, where/how it has been discovered and how it supports the argument. In some subjects, for example, the sciences, sub-headings within the main body of the essay will help the reader to understand the argument (and will also help the student to keep on track). In structuring their extended essay, students must take into consideration the expected conventions of the subject in which their extended essay is registered.

(Sample Title Page)

The Importance of Vyacheslav Molotov In Stalin's 1930s Government

*To what extent was Molotov a driving
force behind Stalin's domestic and foreign
policies in the 1930s?*

Subject: History

Word Count: 3,734
Session: May 2018
Candidate Number: abc123

(Sample Table of Contents Page)

Table of Contents

Introduction	1
Molotov's Rise to Prominence	2
Molotov's Role in Forced Collectivization	4
• The Theory of Collectivization	4
• Molotov's Authority	5
Molotov's Role in the 1937 Purges	6
• Ideology of the Purges	6
• Molotov's Role	7
Stalin and Molotov's Cooperation in the Nazi-Soviet Pact	8
• Molotov's Role in the Pact	8
The Relationship between Molotov and Stalin	11
Conclusion	13
Bibliography	15

Once the main body of the essay is complete, it is possible to finalize the introduction (which tells the reader what to expect) and the conclusion (which says what has been achieved, including notes of any limitations and any questions that have not been resolved).

Any information that is important to the argument must not be included in appendices or footnotes/endnotes. The examiner will not read notes or appendices, so an essay that is not complete in itself will be compromised across the assessment criteria.

Conclusion: The conclusion says what has been achieved, including notes of any limitations and any questions that have not been resolved. While students might draw conclusions throughout the essay based on their findings, it is important that there is a final, summative conclusion at the end. This conclusion(s) must relate to the research question posed.

References and bibliography: Students should use their chosen style of academic referencing as soon as they start writing. That way they are less likely to forget to include a citation. It is also easier than trying to add references at a later stage. For more information on this, refer to the guidelines in the IB document Effective citing and referencing.