

# Contents

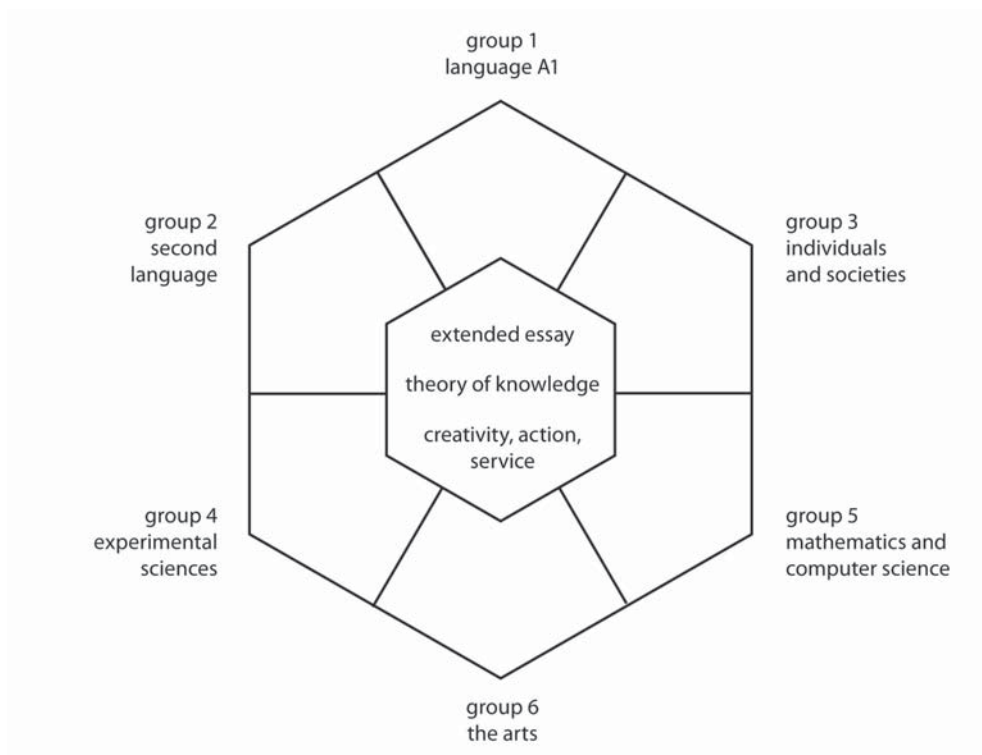
<b>Preliminaries</b>	<b>1</b>
Introduction	1
Nature of the subject	3
Aims and objectives	5
TOK diagrams	6
<b>TOK questions</b>	<b>9</b>
Knowledge issues, knowers and knowing	9
Ways of knowing	13
Areas of knowledge	21
Linking questions	36
<b>Assessment</b>	<b>41</b>
Assessment outline	41
The diploma points matrix	42
Assessment details	44
Assessment criteria	51
<b>End notes</b>	<b>61</b>
References	61



# Introduction

The International Baccalaureate Diploma Programme is a rigorous pre-university course of studies, leading to examinations, that meets the needs of highly motivated secondary school students between the ages of 16 and 19 years. Designed as a comprehensive two-year curriculum that allows its graduates to fulfill requirements of various national education systems, the Diploma Programme model is based on the pattern of no single country but incorporates the best elements of many. The Diploma Programme is available in English, French and Spanish.

The programme model is displayed in the shape of a hexagon with six academic areas surrounding the core. Subjects are studied concurrently and students are exposed to the two great traditions of learning: the humanities and the sciences.



Diploma Programme students are required to select one subject from each of the six subject groups. At least three and not more than four are taken at higher level (HL), the others at standard level (SL). HL courses represent 240 teaching hours; SL courses cover 150 hours. By arranging work in this fashion, students are able to explore some subjects in depth and some more broadly over the two-year period; this is a deliberate compromise between the early specialization preferred in some national systems and the breadth found in others.

Distribution requirements ensure that the science-orientated student is challenged to learn a foreign language and that the natural linguist becomes familiar with science laboratory procedures. While overall balance is maintained, flexibility in choosing HL concentrations allows the student to pursue areas of personal interest and to meet special requirements for university entrance.

Successful Diploma Programme students meet three requirements in addition to the six subjects. The interdisciplinary theory of knowledge (TOK) course is designed to develop a coherent approach to learning that transcends and unifies the academic areas and encourages appreciation of other cultural perspectives. The extended essay of some 4,000 words offers the opportunity to investigate a topic of special interest and acquaints students with the independent research and writing skills expected at university. Participation in the creativity, action, service (CAS) requirement encourages students to be involved in creative pursuits, physical activities and service projects in the local, national and international contexts.

**First examinations 2008**

## Nature of the subject

It is a commonplace to say that the world has experienced a digital revolution and that we are now part of a global information economy. The extent and impact of the changes signalled by such grand phrases vary greatly in different parts of the world, but their implications for knowledge are profound.

Reflection on such huge cultural shifts is one part of what the TOK course is about. Its context is a world immeasurably different from that inhabited by “renaissance man”. Knowledge may indeed be said to have exploded: it has not only expanded massively but also become increasingly specialized, or fragmented. At the same time, discoveries in the 20th century (quantum mechanics, chaos theory) have demonstrated that there are things that it is impossible for us to know or predict.

The TOK course, a flagship element in the Diploma Programme, encourages critical thinking about knowledge itself, to try to help young people make sense of what they encounter. Its core content is questions like these: What counts as knowledge? How does it grow? What are its limits? Who owns knowledge? What is the value of knowledge? What are the implications of having, or not having, knowledge?

What makes TOK unique, and distinctively different from standard academic disciplines, is its process. At the centre of the course is the student as **knower**. Students entering the Diploma Programme typically have 16 years of life experience and more than 10 years of formal education behind them. They have accumulated a vast amount of knowledge, beliefs and opinions from academic disciplines and their lives outside the classroom. In TOK they have the opportunity to step back from this relentless acquisition of new knowledge, in order to consider knowledge issues. These include the questions already mentioned, viewed from the perspective of the student, but often begin from more basic ones, like: What do I claim to know [about X]? Am I justified in doing so [how?]? Such questions may initially seem abstract or theoretical, but TOK teachers bring them into closer focus by taking into account their students’ interests, circumstances and outlooks in planning the course.

TOK activities and discussions aim to help students discover and express their views on knowledge issues. The course encourages students to share ideas with others and to listen to and learn from what others think. In this process students’ thinking and their understanding of knowledge as a human construction are shaped, enriched and deepened. Connections may be made between knowledge encountered in different Diploma Programme subjects, in CAS experience or in extended essay research; distinctions between different kinds of knowledge may be clarified.

Because the subject matter of the course is defined in terms of knowledge issues, there is no end to the valid questions that may arise in a TOK course. This guide consists mainly of questions that have been found to stimulate appropriate TOK inquiry. It would not be possible or desirable to include them all in a course of 100 hours spread over the two years of the Diploma Programme, though it is expected that all sections of the guide will be covered to some extent.

The guide is organized in four broad categories: knowledge issues, knowers and knowing; ways of knowing; areas of knowledge; and linking questions. The categories are not intended to indicate a teaching sequence. There are many different ways to approach TOK. A successful course will:

- build on students’ own experience and involve them actively in the classroom
- ensure that students understand the purpose of TOK and its central role in the Diploma Programme

- allow the teacher to model the values of curiosity, thoughtful inquiry and critical thought
- have a structure that is clear to the students
- meet the objectives of TOK
- ensure that students understand and are prepared for the assessment tasks.

No teacher can be an expert in every field, and the sheer scope of the TOK course is daunting. Students also can be awed by the size of the questions they are considering. Both teachers and students need the confidence to go a little—not too far—outside their usual “comfort zones”. Then, with a spirit of inquiry and exploration, they can begin to share the excitement of reflecting on knowledge.

## Relationship to Diploma Programme subjects and CAS

Diploma Programme subject guides are reviewed on a seven-year cycle. As new guides emerge, they will include references to the relationships between their subjects and TOK. TOK’s own relationship to subjects, and to CAS, makes up much of this guide. Nevertheless, it may be appropriate to mention one or two principles here.

Students experience both TOK and their Diploma Programme subjects, so it is advisable that the teachers of each have some idea of what the others are doing. Indeed, there can be reciprocal gains from shared understandings. As well as making connections with TOK questions (knowledge issues) as they work through their own courses, subject teachers may suggest some theoretical concerns that could be taken further in the TOK classroom. Reflection on CAS experiences includes a focus on what new knowledge students have learned. Conversely, TOK teachers will often seek to ground discussion of knowledge issues in actual examples taken from students’ experience elsewhere in the Diploma Programme.

## International dimensions

In many ways TOK is ideally placed to foster internationalism, in close harmony with the aims of the IB learner profile. The TOK aims embody many of the attributes needed by a citizen of the world: self-awareness; a reflective, critical approach; interest in other people’s points of view; and a sense of responsibility.

Global controversies often rest on significant knowledge issues that can provide useful starting points for TOK explorations, depending on students’ interests and awareness. TOK activity, in turn, can contribute significantly to the understanding of these large questions.

## Aims and objectives

### Aims

The aims of the TOK course are to:

- develop a fascination with the richness of knowledge as a human endeavour, and an understanding of the empowerment that follows from reflecting upon it
- develop an awareness of how knowledge is constructed, critically examined, evaluated and renewed, by communities and individuals
- encourage students to reflect on their experiences as learners, in everyday life and in the Diploma Programme, and to make connections between academic disciplines and between thoughts, feelings and actions
- encourage an interest in the diversity of ways of thinking and ways of living of individuals and communities, and an awareness of personal and ideological assumptions, including participants' own
- encourage consideration of the responsibilities originating from the relationship between knowledge, the community and the individual as citizen of the world.

### Objectives

Having followed the TOK course, students should be able to:

1. analyse critically knowledge claims, their underlying assumptions and their implications
2. generate questions, explanations, conjectures, hypotheses, alternative ideas and possible solutions in response to knowledge issues concerning areas of knowledge, ways of knowing and students' own experience as learners
3. demonstrate an understanding of different perspectives on knowledge issues
4. draw links and make effective comparisons between different approaches to knowledge issues that derive from areas of knowledge, ways of knowing, theoretical positions and cultural values
5. demonstrate an ability to give a personal, self-aware response to a knowledge issue
6. formulate and communicate ideas clearly with due regard for accuracy and academic honesty.

## TOK diagrams

## The traditional TOK diagram

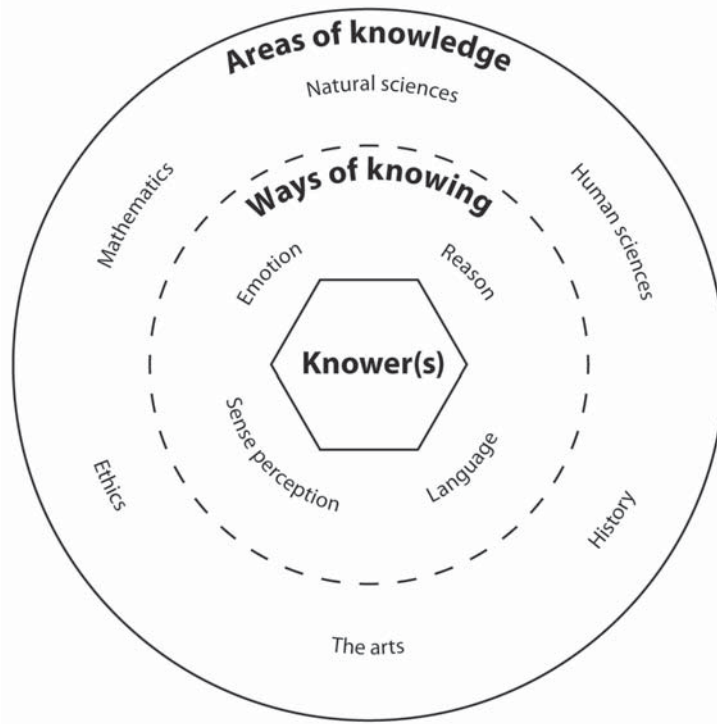


Figure 1

Teachers and students may find figure 1 useful as a pictorial representation of the TOK course.

Because the course is centred on student reflection and questioning, the diagram places the knower(s), as individuals and as groups, at the centre.

Surrounding the knower(s), four ways of knowing are identified, which permeate an exploration and interpretation of the world: the receipt of stimuli through sense perception, affected, perhaps, by an emotional and spiritual dimension labelled as emotion, formulated and expressed through language, and shaped by attempts, through reason, to seek order and clarity.

Within the perimeter, areas of knowledge are identified, which represent a classification of knowledge into subject areas, many of which the student pursues in the Diploma Programme. Six such subject areas are included: mathematics, natural sciences, human sciences, history, the arts, and ethics. No solid barrier, however, separates the ways of knowing and the areas of knowledge, because it can be maintained that the questions “How do I know?” (pertaining to ways of knowing) and “What do I know?” (pertaining to areas of knowledge) interact.

These three elements of the diagram correspond to three of the major divisions of the guide that follow: knowledge issues, knowers and knowing; ways of knowing; and areas of knowledge. Teachers may wish to structure their TOK courses accordingly.

The order in which the topics may be approached is flexible, however, and many entry points and sequences are possible. Teachers becoming acquainted with the TOK course for the first time may feel more confident if they begin with topics with which they are already familiar. Nevertheless, experimenting with conceptual structures other than this diagram, but dealing with the same TOK questions, may equally well fulfill the course aims and enable students to meet the objectives, and is encouraged.

The linking questions are intended to provide not only links for a course based on the above diagram, but to open up possibilities for approaches using alternative structures. It is left to teachers to design their courses within whatever frameworks they prefer.

## Other possible TOK diagrams

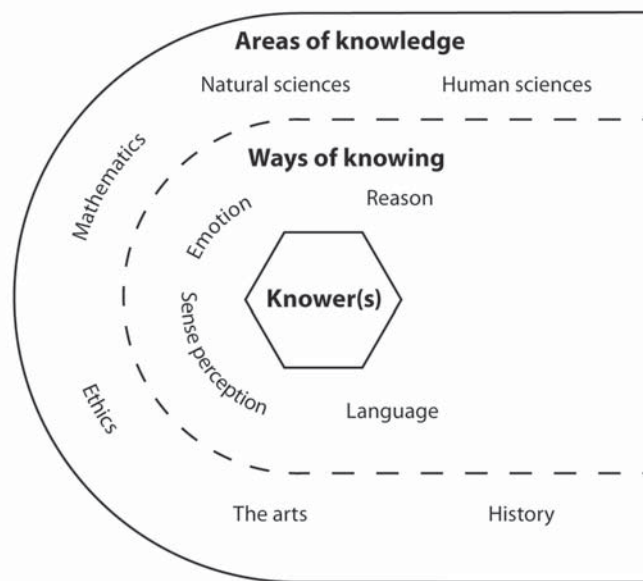


Figure 2

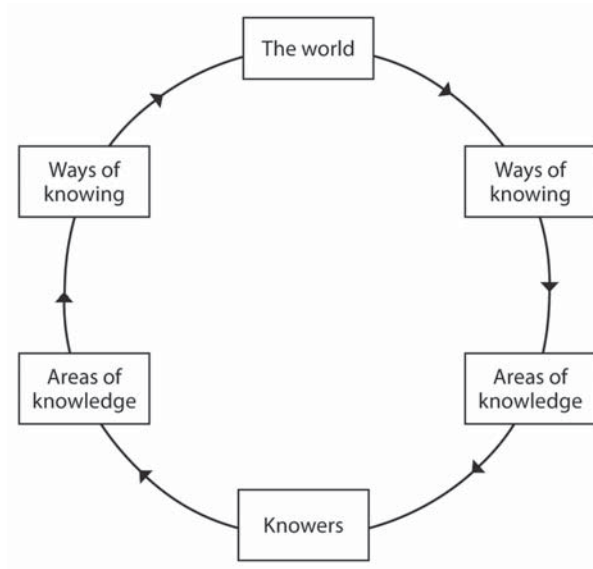


Figure 3

Teachers and students may find it useful to consider the different implications, advantages and disadvantages of these other representations. For example, does the explicit “openness” of figure 2 to other ways of knowing and areas of knowledge imply a different view of knowers themselves? Or, in figure 3, does our disciplinary knowledge not only influence but actually constrain how we can observe, understand and act upon the world?

Are there other, better ways of depicting these knowledge relationships, perhaps ones that express different cultural understandings?

## Knowledge issues, knowers and knowing

"The time has come," the Walrus said,  
"To talk of many things:  
Of shoes—and ships—and sealing-wax—  
Of cabbages—and kings ...."

Lewis Carroll

People know many things: they know when they are cold, or sick; they know if they are sad or happy, lonely or in love; they know how to make fire; they know that the sun will set and rise.

Nonetheless people rarely stop to think about the processes by which knowledge is produced, obtained or achieved, nor about why, under what circumstances, and in what ways knowledge is renewed or reshaped by different individuals and groups at different times or from different perspectives or approaches.

The questions in this guide are meant to provide opportunities to pause and reflect upon the complexity and richness of knowledge and the process of knowing, on the scope and limits of knowledge, as well as on the roles and responsibilities that knowledge may bring to us as individuals, groups or communities. As such, these questions focus on knowledge issues. The use of this term "knowledge issues" is an expressly wide one, the purpose of which is to allow students to undertake an exploration of a diversity of TOK questions that are relevant to them in their specific context. Precisely because of its breadth, however, it is important to provide guidance for teachers and students as to what is and, importantly, what is not a knowledge issue.

### Knowledge issues

Knowledge issues are questions that directly refer to our understanding of the world, ourselves and others, in connection with the acquisition, search for, production, shaping and acceptance of knowledge. These issues are intended to open to inquiry and exploration not only problems but also strengths of knowledge. Students sometimes overlook the positive value of different kinds of knowledge, and the discriminatory power of methods used to search for knowledge, to question it, and to establish its validity. Knowledge issues can reveal how knowledge can be a benefit, a gift, a pleasure and a basis for further thought and action, just as they can uncover the possible uncertainties, biases in approach, or limitations relating to knowledge, ways of knowing, and the methods of verification and justification appropriate in different areas of knowledge.

Two examples:

- Consider the question, “What is the value of distinguishing between what we know and what we don’t know?” In the context of problems of knowledge, the emphasis is likely to be on the good reasons we have for doubting whether the lines we draw between the two are as clear as we sometimes suppose them to be. In contrast, in the context of knowledge issues, the reasons we have to maintain the legitimacy and usefulness of the distinction are likely to come to the fore.
- Alternatively, consider the question, “Is there one way of knowing that is best for acquiring knowledge?” In the context of problems of knowledge, the emphasis is likely to be on why over-reliance on or confidence in each way of knowing would be unwise; in the context of knowledge issues, reasons for relying on or trusting ways of knowing should also be considered.

In the broadest understanding of the term, knowledge issues include everything that can be approached from a TOK point of view (that is, in accordance with the TOK aims and objectives as they are formulated) and that allows a development, discussion or exploration from this point of view. For example, a simple question that is often raised by students, “Are teachers’ course handouts and textbooks always right?”, can be treated as a knowledge issue when correctly framed in the context of TOK aims and objectives. On the contrary, it can be the prompt for entirely trivial answers that have little or nothing to do with TOK.

It is to be expected that a good treatment of many knowledge issues will necessarily deal with several aspects described above and that these can be interwoven in different, equally relevant ways. For this reason the treatment of knowledge issues can be distinguished from other issues that might arise in the context of a particular subject area. For example, a consideration of sense perception exclusively from the point of view of the psychology or biology of perception is not a TOK treatment of a knowledge issue.

## Nature of knowing

- In English there is one word “know”, while French and Spanish, for example, each has two (*savoir/connaître* and *saber/conocer*). In what ways do various languages classify the concepts associated with “to know”?
- In English, French, Spanish or Chinese, for example, what is the relationship between the different ways of expressing “know”: “they know of it”, “they know about it”, “they really know it”, “they know that person”, “they know that this is so”, “they know how to do it”? Are there other ways of using the verb “to know”?
- How do “believing that” and “believing in” differ? How does belief differ from knowledge?
- What are the differences between the following: information, data, belief, faith, opinion, knowledge and wisdom?

## Knowledge communities

- In the TOK diagram, the centre is represented as both an individual and a group. To what extent can we distinguish between knowing as an individual and knowing as a group or community enterprise?
- How much of one’s knowledge depends on interaction with other knowers?
- Are there types of knowledge that are specifically linked to particular communities of knowers?

- To what extent can we act individually in creating new knowledge? What are the strengths of working in a knowledge community? What are the dangers?
- Is common sense just what is taken for granted in a community? How can we decide when to question common sense?
- Presented with the belief system of a community of knowers, how can we decide what we personally believe? How can we decide which beliefs we ought to check further? In the end does it just amount to a question of trust? If so, how can we decide who to trust, and on which issues?
- Do we need to grow up in a human community in order to develop ways of knowing (sense perception, language, reason and emotion)? Or are we born “hard wired” to be able to use them? Is community more important in some ways of knowing than others?
- In what sense is a community of knowers like bees constructing the labyrinths of their hive or a group of builders constructing a building?

## Knowers and sources of knowledge

- How is knowledge gained? What are the sources? To what extent might these vary according to age, education or cultural background?
- What role does personal experience play in the formation of knowledge claims?
- To what extent does personal or ideological bias influence our knowledge claims?
- Does knowledge come from inside or outside? Do we construct reality or do we recognize it?
- “Whoever acquires knowledge and does not practise it resembles him who ploughs his land and leaves it unsown.” (Sa’di) Are there responsibilities that necessarily come with knowing something or knowing how to do something? To whom might these responsibilities be owed?
- In what sense, if any, can a machine be said to know something? How can anyone believe that a machine can think?
- When a machine gives an instruction to press a certain button to make it work, where is that knowledge or awareness located? Does technology allow some knowledge to reside outside the human knower? Is knowledge even a “thing” that resides somewhere?

## Justification of knowledge claims

- “If the frog tells you that the crocodile is dead, do not doubt it.” What might this Ghanaian proverb suggest about who it is that provides the justification for a knowledge claim? What is the difference between “I am certain” and “It is certain”? Is conviction sufficient for a knowledge claim to be validated? What are the implications of accepting passionate, personal belief as knowledge?
- How are knowledge claims justified? Are the following types of justification all equally reliable: intuition, sense perception, evidence, reasoning, memory, authority, group consensus, and divine revelation?
- Why should time be taken to assess critically the nature of knowledge claims?

## Linking questions

- Do knowledge claims transcend different communities or cultures? What differences exist between public and private justifications? To what extent might this distinction between private knowledge and public knowledge be culturally dependent?
- Do the images of a web, building blocks, concentric circles, a spiral, or a grid make a convincing description of the interconnections in the ways of knowing and areas of knowledge? In what ways might these metaphors be useful?
- To what extent is knowledge about the past different in kind from other kinds of knowledge?
- Does making a knowledge claim carry any particular obligation or responsibility for the knower?