Mountain Creek State High School

Jessi Hunt on Wednesday, Oct 30, 2019 at 12:55 PM

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Shared grades Year 1 Start Date Week 1, January Duration 9 Weeks Subject Theory of Knowledge

Course part Introduction to Theory of Knowledge and Big Questions 1 - 3

Unit description

The central focus of the initial 9 weeks of Year 1 is to introduce students to the conceptual nature of ToK. The Big Questions Framework provides a scaffold that is supported by a Conference and student online reflections. Teaching and Learning practices employed are around collaboration and communication in order to encourage students to use a top down model of learning which is reflective of the overall objectives of the ToK programme.

○ INQUIRY & PURPOSE

Essential Understandings

Critical Thinking regarding the wider implications of the nature of knowledge as it is affected by the Ways of Knowing and Areas of Knowledge

Critical links between concept and content

Transfer goals

- * understanding through collaboration
- * understanding through reflection
- * understanding by drawing links between academic disciplines

Missed concepts/misunderstandings

Achieving paradigm shifts in relation to the nature of knowledge and its changing nature

How knowledge is affected by varying perspectives

Fostering international-mindedness around 'How do we know what we know?"

Supporting an integrated approach to their learning

RESOURCES



https://mtncreekshs.moodlesite.pukunui.net/course/view.php?id=28¬ifyeditingon=1#section-1 Added by **Elizabeth Mullighan** on December 13, 2018

CURRICULUM

Aims & Objectives

AIMS

Make connections between a critical approach to the construction of knowledge, the academic disciplines and the wider world Develop an awareness of how individuals and communities construct knowledge and how this is critically examined Develop an interest in the diversity and richness of cultural perspectives and an awareness of personal and ideological assumptions Critically reflect on their own beliefs and assumptions, leading to more thoughtful, responsible and purposeful lives Understand that knowledge brings responsibility which leads to commitment and action

OBJECTIVES

identify and analyse the various kinds of justifications used to support knowledge claims formulate, evaluate and attempt to answer knowledge questions examine how academic disciplines/areas of knowledge generate and shape knowledge understand the roles played by ways of knowing in the construction of shared and personal knowledge explore links between knowledge claims, knowledge questions, ways of knowing and areas of knowledge demonstrate an awareness and understanding of different perspectives and be able to relate these to one's own perspective explore a real-life/contemporary situation from a TOK perspective in the presentation Syllabus Content

TOK and the learner profile

- Inquirers: TOK students are inquirers, by considering how knowledge is constructed within the different ways of knowing, how the different areas of knowledge may categorize knowledge differently, and by not accepting knowledge claims that are based on insufficient evidence.
- Knowledgeable: TOK students are knowledgeable about the nature of knowledge, and understand that different perspectives and methods of inquiry can lead to different forms of understanding about the world.
- Thinkers: TOK students understand what it takes to be an effective thinker, recognizing how our thinking is often flawed, and that our thoughts are "related to emotional processing and intuition".
- Communicators: The two TOK assessment tasks require students to be communicators, in both a written and an oral way, as well as considering language as a way of knowing
- Principled: Exploring knowledge in a critical way means that TOK students approach the course in a principled way, and consider the moral obligations that come with the possession of knowledge.
- Open-minded: Encountering a wide range of knowledge claims, and understanding that possessing absolute certainty is rarely, if ever, valid, means that TOK students are open-minded, and accept that different forms of viewing and understanding the world can be equally effective.
- Caring: TOK students are caring, because they consider how knowledge should be used, ideally in "sympathetic, empathetic, and compassionate ways".
- Risk-takers: In examining their own assumptions and beliefs, TOK students are risk-takers, and have to grapple with challenging, unfamiliar, and controversial knowledge claims and questions as they seek to understand the world.
- Balanced: Looking at different perspectives, considering different areas of knowledge, and maintaining both a critical and openminded approach to the world, TOK students are balanced, and able to express their ideas via a range of different mediums.
- Reflective: TOK students constantly reflect on how their own, and other people's, "motivations, beliefs, thought processes and emotional reactions" shape what and how we understand the way the world works.

Knowledge claims and knowledge questions

- · Knowledge claims and knowledge questions are the mechanisms whereby students explore how we know about the world.
- Claims that are made and questions that are asked about knowledge fall into two categories 'first-order' and 'second-order' knowledge.
 - First-order knowledge is concerned with what we know directly about the world.
 - Second-order knowledge is concerned with how we have acquired our knowledge about the world.
- To see the difference between these two types of knowledge, here are a few examples of first and second-order knowledge claims:

- "There are an infinite number of prime numbers." This is a first-order knowledge claim because it resides firmly inside the area of knowledge mathematics. It is established using the method of mathematical proof.
- "Mathematical knowledge is certain." This is a second-order knowledge claim because it is about mathematical knowledge. We establish this by examining the methods of mathematics themselves using the tools of TOK.
- "Nationalism and militarism were partly to blame for the First World War." This is a first-order claim because it belongs in the area of knowledge of history, and would be explored using historical evidence.
- "Societal perspectives help to shape historical claims about the past". This is a second-order claim, because it is about how historians build up their understanding of the past. We would evaluate this claim thinking about the knowers, and their process of acquiring knowledge, rather than historical evidence.
- "Economic market failure may require the intervention of the government." This is a first-order claim because it would be one considered by human scientists, using evidence linked to economics.
- "The subject matter of the human sciences make it harder than the natural sciences to produce laws." This is a secondorder claim, because it requires us to assess the reliability of knowledge within the human sciences, and compare it to another area of knowledge - the natural sciences.
- In the same way we make claims about knowledge, we also ask questions about knowledge. These 'knowledge questions' are at the heart of TOK, and students will be assessed in the presentation and essay on how well they understand and analyse them.
- An effective knowledge question asks a second-order knowledge question (in other words, a question about knowledge and how we know), is an open question, which may lead to several different plausible answer, and is framed in general, rather than subject-specific terms.
- Knowledge questions can be asked about almost all topics and issues.
 - Example 1: Future population growth in Africa
 - Not a knowledge question: "How can we predict future population growth in Africa?" This is not a knowledge question because it is a technical question within the discipline of population studies.
 - Good knowledge question: "How can a mathematical model give us knowledge even if it does not yield accurate predictions?" This is now sufficiently general and explores the purpose and nature of mathematical modelling.
 - Example 2: The placebo effect and its impact on the medical profession
 - Not a knowledge question: "How does the placebo effect work?" An answer to this might involve a technical explanation in psychology.
 - A good knowledge question: "How could we establish that X is an 'active ingredient' in causing Y?" This question is actually a rather general one about how we can know about causal links. It is a classic knowledge question.

Shared and personal knowledge

- · One of the most important ways that knowledge is conceived in TOK is by viewing it as either 'shared' or 'personal'.
- Shared knowledge knowledge belonging to a group is something that "we know".
- · Personal knowledge knowledge possessed by an individual is something that "I know."
- Shared knowledge is highly structured, is systematic in its nature and the product of more than one individual.
- Personal knowledge is gained through experience, practice and personal involvement and may be skills, practical abilities and individual talents that are more difficult to communicate to others.
- Thinking about shared knowledge allows students to consider the nature of the group that does the sharing, so it invites
 us to consider the role played by culture, gender, nationality, politics, and so on, in shaping our understanding of the
 world. Considering personal knowledge helps students to explore their personal experiences of the world, via memory, sense
 perception, and emotions, and think about how they have developed intellectually as they have changed from children into young
 adults.

Ways of knowing

- The ways of knowing explore the methods by which we produce and acquire knowledge. The IB identify eight different ways of knowing, but stress that this number is not definitive, and also that the ways of knowing do not operate in isolation - in other words, the production of knowledge usually involves the application of multiple ways of knowing at the same time.
- The IB recommends that students build up an understanding of at least four of these ways of knowing in depth. Ways of knowing are rarely mentioned explicitly in the prescribed essay titles, but should be referred to by students as they explore their knowledge claims and counterclaims.

- Below is a list of the eight ways of knowing identified by the IB, together with the kind of knowledge questions that might be asked about each one.
- Emotion
 - · Are emotions universal?
 - Can/should we control our emotions?
 - · Are emotions the enemy of, or necessary for, good reasoning?
 - · Are emotions always linked to belief?
- Faith
 - · Should humanism or atheism be described as a faith?
 - · Can theistic beliefs be considered knowledge because they are produced by a special cognitive faculty or "divine sense"?
 - · Does faith meet a psychological need?
- Imagination
 - · What is the role of imagination in producing knowledge about a real world?
 - · Can imagination reveal truths that reality hides?
 - · What is the role of the imagination in understanding others?
- Intuition
 - · Why are some people considered more intuitive than others?
 - · Are there certain things that you have to know prior to being able to learn anything at all?
 - Should you trust your intuition?
- Language
 - How does language shape knowledge?
 - Does the importance of language in an area of knowledge ground it in a particular culture?
 - · How are metaphors used in the construction of knowledge?
- Memory
 - · Can we know things which are beyond our personal present experience?
 - · Is eyewitness testimony a reliable source of evidence?
 - · Can our beliefs contaminate our memory?
- Reason
 - · What is the difference between reason and logic?
 - · How reliable is inductive reasoning?
 - Are we predictably irrational?
- Sense Perception
 - · How can we know if our senses are reliable?
 - · What is the role of expectation or theory in sense perception?
 - · What is the role of language in sense perception?

Areas of knowledge

- The areas of knowledge are the broad categories that we place our knowledge into.
- Students should be encouraged to think about individual academic disciplines within the AOKs, such as geography (a human science), chemistry (a natural science), and dance (one of the arts).
- In order to explore the AOKs, the IB suggest using a conceptual framework. You can either construct your own framework, or you can use the one created by the IB, which asks students to consider the following aspects of each AOK:
 - The "scope, motivation and applications" of knowledge in the AOK
 - The "specific terminology and concepts" found within the AOK
 - The "methods used to produce knowledge" in the AOK
 - "Key historical developments" within the AOK
 - "Links to personal knowledge" between the student and the AOK

- You can find out more about how the IB's knowledge framework applies to each specific AOK by looking at the subject guide. Here, we provide a list of some of the typical knowledge questions that could be asked about each AOK.
- The arts
 - · How can the subjective viewpoint of an individual contribute to knowledge in the arts?
 - On what basis can the merit of a work of art be judged?
 - · Is there any point in discussing the arts-should we not simply experience them?
- · Ethics
 - · Is there such a thing as moral knowledge?
 - · Does the rightness or wrongness of an action depend on the situation?
 - · Are all moral opinions equally valid?
 - · Is there such a thing as a moral fact?
- · History
 - · What is unique about the methodology of history?
 - · Is eyewitness testimony a reliable source of evidence?
 - · How do we decide which events are historically significant?
- Human sciences
 - · To what extent are the human sciences reliable?
 - · Can human behaviour be subject to laws in the same way as the material world?
 - · What constitutes good evidence in the human sciences?
- Indigenous knowledge systems
 - In what ways are sense perception and memory crucial in constructing knowledge in indigenous knowledge systems?
 - How do beliefs about the physical and metaphysical world influence the pursuit of knowledge in indigenous knowledge systems?
 - · How do indigenous people use the concept of respect to relate to their view of the world?
- Mathematics
 - · Is there a distinction between truth and certainty in mathematics?
 - · Is mathematics independent of culture?
 - · Is mathematics discovered or invented?
- Natural sciences
 - · What does it mean for a discipline to be a science?
 - · Is there just one scientific method?
 - · Should there be ethical constraints on the pursuit of scientific knowledge?
- Religious knowledge systems
 - · How do we decide between the competing claims of different religious knowledge systems?
 - · Can there ever be a basis for religious knowledge that is independent of the culture that produces it?
 - · Is atheism as much a matter of faith as religious belief?

ASSESSMENT

Formative assessment

* Formative assessment is undertaken in year 1 as across the year with individual consultation, peer evaluation, collaborative research presentations and individual reflections.

Summative assessment

* Students complete their Summative assessment for IB in the second year.

Peer and self assessment

* Achieved through group discussion, debate and justification of claims.

Standardization and moderation

- * Cross marking between colleagues.
- * Teacher professional learning through engaging in examining processes.
- * Attending training workshops.
- * Engaging in online forums discussions.
- * Participating in webinars.

Assessment criteria

SL Criteria

Internal Assessment

TOK presentation

Global impression question:

Do(es) the presenter(s) succeed in showing how TOK concepts can have a practical application?

The presentation is focused on a well-formulated knowledge question The knowledge question is clearly connected to a specific real-life situation The knowledge question is effectively explored in the context of the real-life situation The knowledge question is explored using convincing arguments The knowledge question is explored with investigation of different perspectives The outcomes of the analysis is shown to be significant to the chosen real-life situation The outcomes of the analysis is shown to be

LEARNING EXPERIENCES

Prior learning experiences

We ascertain prior knowledge through the observation of the way a student might articulate the extent to which their knowledge and understanding is influenced by individual ways of knowing.

Prior knowledge, to any extent, is vital to the nature of ToK. A student world view is established and built by their ways of knowing. It is not so much a quantitative measure but a general awareness that a learner has prior knowledge and the value of that.

We will know this through: monitoring student reflections and demonstrated discussions with peers.

Pedagogical approaches

Lessons are framed according to the Big Question framework , IB syllabus documents and IB Coordinator.

The pedagogy employed varies and is differentiated according to the class and the individual learning needs of the individual and

group.

The questions are open and support range in student engagement through learning experiences including: individual presentations, poster construction, online documentation, Knowledge Framework templates.

Feedback

- * Individual Consultations
- * Peer editing
- * Personal Reflection: W(what), W(worked), W(well) and E(even), B (better), I (if...)

Student expectations

* students are provided with a planner that outlines each week's lesson focus for a Semester.

* expectations are communicated through the organisation of the course documents and the accessibility that students have. The school platform is Moodle.

* introductory lessons provide detail of assessment and the long term subject objectives in order that they may be deliberate and strategic in their organisation of content.

Support materials

Examples
Rubrics
Templates
Sample Exam Questions
Mark Schemes

Learning Process

Lecture
Socratic seminar
Small group/pair work
PowerPoint lecture/notes
Individual presentations
Group presentations
Student lecture/leading
Interdisciplinary Learning

Other/s

* Year 11 and students are provided with three opportunities to experience ToK through a conference format. This involves an external presenter leading students.

*This also supports the transfer of skills: concepts and content.

Activities

Memory Test

1.0_Outline__student_handout_.docx

Differentiation

Affirm identity - build self-esteem Value prior knowledge Scaffold learning

Extend learning

CONNECTIONS

Approaches to Learning

- Thinking
- 🚯 Social
- Communication
- Self management
- Research

* The nature of ToK as a course requires that candidates inherently exercise an awareness that knowledge is malleable. The variable in how Approaches to Learning are exercised with be between individual and collaborative. An individual learner needs to appreciate individual prior knowledge in order to engage in a wider examination of the nature of knowledge.

Learner Profile

Inquirers

ToK is about 'how do you know what you know' the inherent nature of questioning is a central characteristic experienced by students which reflects the overall course aims.

Thinkers

Students are drawn into and encouraged to think critically about what may be considered knowledge.

Risk-takers (Courageous)

Candidates are risk-takers as they engage in learning that challenges them to consider varying perspectives.

Reflective

Student reflection is encouraged as a means of recognising that knowledge requires consideration.

International Mindedness

Connections are critical. Students are supported in developing an appreciation for a wide range of cultures. Knowledge does not exist in isolation. Resources that help support students building a practical and respectful appreciation of diversity includes drawing connections between disciplines and ToK eg ESS, Languages, Literature etc. and conferences.

Academic Honesty

Academic honesty is reinforced through practices including: Student record / journaling, Turnitin and individual conferencing. Draft feedback according to the assessment parameters. Reviewing Bibliographic sources.

Academic honesty is reinforced across all disciplines.

Information Communication Technology

OneNote and Moodle are the main digital platforms utilised. Students also build electronic forums for group sharing and support of each other. The development of this aspect is progressing.

Language and learning

Activating background knowledge Scaffolding for new learning Acquisition of new learning through practice

Demonstrating proficiency

TOK Connections

Personal and shared knowledge Ways of knowing Areas of knowledge The knowledge framework

Initially, the objective is to provide students with a superficial overview of these connections. Following this, the course is around top down learning that involves student engagement, critical examination, individual reflection, collaborative discussion to show a practical application of the ToK Connections in a balanced way.

CAS Connections

Creativity

Activities can vary to reflect the individuality of staff and students. Imagination as a way of knowing helps challenge students to consider how they know what they know.

Metacognition

Reflection on content Reflection on concepts

REFLECTIONS & EVALUATION

2019

Prior to studying the unit

Each year as a staff we consider and review the organisation of content. The impact of this is that student perception of value around the course tends to be increased as they see it as relevant and current.

During the unit

As a staff, we prefer to have a degree of fluidity in the delivery. We appreciate that students need to time to 'chew over' some quite difficult concepts. We believe that being encouraging and patient in the course delivery that we are supporting students in developing confidence in their ability.

Notes/changes/suggestions:

Review the organisation of the 8 Big Questions delivery. Do they necessarily need to be chronological?

Incorporate ToK connections, be more deliberate with the knowledge frameworks to help support student appreciation of the methodological nuances around the production of knowledge.

What worked well

Lessons are engaging and varied.

What didn't work well

We need to develop a more strategic approach in delivering the program with appropriate depth and scope. This may be achieved by the layering of student communication and reflections with course content.

Transfer reflection

The transfer goals require some more explicit promotion for students and this may be achieved with a more deliberate connection

between disciplines.