



# Rising 12 IB ToK Summer Homework Assignment

This summer, you will have a marvelous opportunity to expand your understanding of the Areas of Knowledge by exploring the paradigm shifts that have occurred within them. What is a paradigm shift, you ask? Well, a classic example is that, in classical times, the solar system was considered to be geocentric, but that today we consider the solar system to be heliocentric after Galileo's insights. These changes in how we understand our world, and the knowledge claims we make as a result, are referred to as **paradigm shifts**.

In TOK, we are to understand how knowledge claims are made in the Areas of Knowledge with the aid of "Knowledge Frameworks". These are graphs that delineate the scope, concepts, and methodologies employed in a particular Area of Knowledge. These "Knowledge Frameworks" also delineate "historical development" in an AOK and "links to personal knowledge". However, there are issues with these Knowledge Frameworks, especially in light of paradigm shifts. Consider:

- \* Have the methodologies employed to arrive at knowledge claims in an AOK remained consistent with these paradigm shifts/historical development?
- \* Are the same concepts and language used in each branch of the AOK (psychology and economics in Human Science, for example)?
- \* Have the questions asked in an AOK changed over time?

It may, therefore, behoove us, rather, to create a different Knowledge Framework for each stage of a paradigm shift in an Area of Knowledge

And that's exactly what we're going to do!

## Here is your individual summer homework assignment:

- Watch the BBC series *The Day the Universe Changed* (shared on the Drive)
- Select an Area of Knowledge
- Consider the paradigm shifts that have occurred in that AOK (it would be best to base this on one discussed in the series)
- Using the outline for Knowledge Frameworks provided in the TOK Guide, create a Knowledge Framework for each stage of the paradigm shift. Note the relevant scope, concepts, questions, and methodologies employed in that AOK for each stage. You may need to break the AOK into sub-categories at each stage as



well (i.e. plane geometry, trigonometry, algebra, and the calculus in Mathematics).

- Include also the following categories: “Thinkers” (those who developed ideas, introduced new concepts, or brought about paradigm shifts in the AOK) and “Knowledge Claims” (what concepts were considered “true” in that AOK, and how these claims were supported [e.g. how did Aristotle “prove” that the universe was geocentric?]).
- Be thorough and detailed! Consider your ideas carefully and research your ideas completely! References will be expected.
- Create a presentation that illustrates each stage of the paradigm shift in that AOK as a distinct Knowledge Framework. Also, in your presentations, discuss how and why the AOK has changed over time and why, what factors have remained consistent in that AOK despite paradigm shifts, and how you apply this AOK to the development of your own Personal Knowledge.
- Posters of each stage of the paradigm shift in that AOK should also be generated for permanent display in the classroom.
- Presentations will be given the second week after you return to school.
- You will be graded by the following rubric:

KF's include all required categories for each stage	Thorough!	Mostly	Some	Nope
Each category is fully detailed and explained for each stage	Thorough!	Mostly	Some	Nope
Discussion of how/why shifts occurred is detailed and enlightening	Enlightening!	Good	Confusing or incomplete	Not really helpful
Discussion of which elements have remained consistent between paradigm shifts is enlightening and interesting	Enlightening!	Good	Confusing or incomplete	Not really helpful
Discussion of how AOK is applied to Personal Knowledge is enlightening	Enlightening!	Good	Confusing or incomplete	Not really helpful
References	Complete	Not all	Not most	Nope