|  | **EXPLANATION** |
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| **Understanding the 12 key concepts*** *The 12 key concepts are ones that have been identified as having a particular significant relationship to knowledge.*
* *Understanding, exploring, and using these concepts will help you to understand the way knowledge is produced and used, within the core and optional themes, and the areas of knowledge.*
* *You should also try to use the key concepts as extensively as possible in the two TOK assessment tasks.*
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| **Starting points for explanation*** How many online definitions can you find for ‘explanation’?
* Which one do you think best sums up this concept, and why?
* Which of the quotes below do you think provides us with the best insight into explanation? Are there any you disagree with?
* What constitutes an effective explanation for you?
* How might the possession of power change the way we understand the world?
 | **Quotes on explanation*** To one who has faith, no explanation is necessary. To one without faith, no explanation is possible. [*Thomas Aquinas*](https://en.wikipedia.org/wiki/Thomas_Aquinas)
* A little inaccuracy sometimes saves a ton of explanation. [*Hector Hugh Munro*](https://en.wikipedia.org/wiki/Saki)
* The reason people turn to supernatural explanations is that the mind abhors a vacuum of explanation. Because we do not yet have a fully natural explanation for mind and consciousness, people turn to supernatural explanations to fill the void. [*Michael Shermer*](https://en.wikipedia.org/wiki/Michael_Shermer)
* Explanation separates us from astonishment, which is the only gateway to the incomprehensible. [*Eugene Ionesco*](https://en.wikipedia.org/wiki/Eug%C3%A8ne_Ionesco)
* If I have learned anything as a scientist, it is that one should not make things complicated when a simple explanation will do. [*Ivar Giaever*](https://en.wikipedia.org/wiki/Ivar_Giaever)
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| **Interlinking the key concepts*** How do explanations vary from **justifications**?
* Can we explain anything without **evidence**?
* Do our explanations depend on our **perspective**?
* Do our **values** help or hinder us from explaining the world?
* What’s the difference between explaining something, and **interpreting** it?
 | **Relating explanation to the TOK course*** Is our ability to explain wholly dependent on our ability to use language?
* In which areas of knowledge are explanations easiest/most difficult to construct?
* Does technology help or hinder our ability to explain our claims?
* How do indigenous explanations about the world differ from those in large-scale societies?
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| **Relating explanation to the TOK exhibition*** IAP-4: Think about how an explanation might make us doubt a claim
* IAP-10: Think about the challenges associated with communicating knowledge via explanations
* IAP-24: Think about how the context of an explanation determines whether knowledge will be accepted or rejected
* IAP-32: Think about what constitutes a good explanation
 | **Relating explanation to the Big Questions** * [**BQ1**](https://theoryofknowledge.net/members/6bq-framework/bq1-foundations/) - What are the key ways of explaining ideas?
* [**BQ2**](https://theoryofknowledge.net/members/6bq-framework/bq2-values/) - What represents a ‘moral’ and an ‘immoral’ way of explaining ideas?
* [**BQ3**](https://theoryofknowledge.net/members/6bq-framework/bq3-spin/) - How does the form of explanation change the nature of our understanding?
* [**BQ4**](https://theoryofknowledge.net/members/6bq-framework/bq4-perspectives/) - Does our ability to explain knowledge depend on our perspective?
* [**BQ5**](https://theoryofknowledge.net/members/6bq-framework/bq5-creativity/) - How have forms of explanations changed over time?
* [**BQ6**](https://theoryofknowledge.net/members/6bq-framework/bq6-experts/) - Is clarity of explanation the key characteristic of expert thinkers?
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| **Real-world contexts for explanation**The media sources below explicitly mention explanation, and discuss this key concept in a real-world context. Use the find command (ie Command/Control+F) to locate the term in the article or transcript of the video, and you’ll see where it features. Check back regularly, as we update these media sources every month.  |
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| ***Big Question / knowledge framework***  | ***Description of media source and story and links to the course*** |
| BQ3 / Methods & tools | An [**Atlantic**](https://www.theatlantic.com/ideas/archive/2021/10/problem-with-word-problematic/620289/) article, arguing that the word ‘problematic’ is misused by people. [*Language*](https://theoryofknowledge.net/the-tok-themes/tok-optional-themes/knowledge-and-language/)*,* [*Human sciences*](https://theoryofknowledge.net/areas-of-knowledge/human-sciences/) |
| BQ4 / Perspectives | A [**Guardian**](https://www.theguardian.com/uk-news/2022/jun/22/female-scientists-less-likely-to-be-given-authorship-credits-analysis-finds) article, reporting on analysis that suggests female scientists are less likely to be credited for new discoveries. [*Natural sciences*](https://theoryofknowledge.net/areas-of-knowledge/natural-sciences/)*,* [*Human sciences*](https://theoryofknowledge.net/areas-of-knowledge/human-sciences/) |
| BQ5 / Methods & tools | A [**Guardian**](https://www.theguardian.com/technology/2022/jan/09/are-we-witnessing-the-dawn-of-post-theory-science) article, which considers whether machine learning means the end of the scientific method. [*Natural sciences*](https://theoryofknowledge.net/areas-of-knowledge/natural-sciences/)*,* [*Technology*](https://theoryofknowledge.net/the-tok-course/tok-optional-themes/knowledge-and-technology/)*,* [*Mathematics*](https://theoryofknowledge.net/areas-of-knowledge/mathematics/)A [**New Humanist**](https://newhumanist.org.uk/articles/5867/quantum-physics-and-philosophy-w-carlo-rovelli) podcast, featuring Carlo Rovelli, referred to by some as the ‘poet of physics’ for his work on quantum theory. [*Natural sciences*](https://theoryofknowledge.net/areas-of-knowledge/natural-sciences/)*,* [*Mathematics*](https://theoryofknowledge.net/areas-of-knowledge/mathematics/)*,* [*Technology*](https://theoryofknowledge.net/the-tok-themes/tok-optional-themes/knowledge-and-technology/)*,* [*Knowledge & the knower*](https://theoryofknowledge.net/the-tok-themes/knowledge-and-the-knower/)A [**Vox**](https://www.vox.com/22453571/lab-leak-covid-19-coronavirus-hypothesis-wuhan-virology-china) article, examining the reports that the US and other Western governments are treating accusations that Covid began in a lab increasingly seriously. [*Natural sciences*](https://theoryofknowledge.net/areas-of-knowledge/natural-sciences/)*,* [*Human sciences*](https://theoryofknowledge.net/areas-of-knowledge/human-sciences/)*,* [*politics*](https://theoryofknowledge.net/the-tok-themes/tok-optional-themes/knowledge-and-politics/)*,* [*knowledge & the knower*](https://theoryofknowledge.net/the-tok-themes/knowledge-and-the-knower/)A [**Big Think**](https://bigthink.com/surprising-science/astrophysicist-dark-fluid-missing-95-percent-universe) article, looking at the claims of an astrophysicist that ‘dark fluid’ represents the missing 95% of the mass of the universe. [*Natural sciences*](https://theoryofknowledge.net/areas-of-knowledge/natural-sciences/)*,* [*mathematics*](https://theoryofknowledge.net/areas-of-knowledge/mathematics/) |