

# Linking TOK Areas of Knowledge with Ways of Knowing

|                       | <i>Emotion</i>  | <i>Reason</i>  | <i>Perception</i>   | <i>Language</i>  |
|-----------------------|---|--|---|--|
| <i>Science</i>        | <ul style="list-style-type: none"> <li>Wishful thinking when interpreting experimental results</li> </ul>         | <ul style="list-style-type: none"> <li>deduction, induction</li> <li>correlation and cause/effect</li> <li>thought experiments</li> <li>Popper: demarcation and induction</li> </ul> | <ul style="list-style-type: none"> <li>Observation is first step of scientific method</li> <li>Science based on (unreliable?) perception; Selective perception.</li> </ul>  | <ul style="list-style-type: none"> <li>Scientific language, jargon</li> <li>Misleading language (pseudoscience)</li> </ul>   |
| <i>History</i>        | <ul style="list-style-type: none"> <li>Effect of Emotion on interpretation of History</li> </ul>                  | <ul style="list-style-type: none"> <li>Interpretation of facts based on cause and effect</li> </ul>  | <ul style="list-style-type: none"> <li>Can't obtain experimental results in history? Experimental anthropology!</li> <li>To what extent do historic paintings (seen over sense perception) reflect the history of that time?</li> </ul> | <ul style="list-style-type: none"> <li>Comparing 2 articles using manipulative/ non manipulative language</li> </ul>         |
| <i>Arts</i>           | <ul style="list-style-type: none"> <li>Leo Tolstoy: definition of art, art conveys emotions</li> </ul>            | <ul style="list-style-type: none"> <li>Golden cut, measurably of beauty? Scientists made beauty of faces made measurable</li> </ul>  | <ul style="list-style-type: none"> <li>Music : hearing; pictures : seeing; smell : ??; touch : ??</li> <li>Museum for the blind: links the sense of touch with arts</li> </ul>  | <ul style="list-style-type: none"> <li>Music as a language</li> <li>Art itself as a language? eg. Cave paintings</li> </ul>  |
| <i>Math</i>           | <ul style="list-style-type: none"> <li>How do emotional attitudes influence the ability to learn math?</li> </ul> | <ul style="list-style-type: none"> <li>Axioms, theorems, rules of inference. Reasoning is used during the application of the rules to axioms and theorems.</li> </ul>                | <ul style="list-style-type: none"> <li>Math able to describe, predict phenomena that are not perceivable (discovery of planets that are not yet seen)</li> </ul>  | <ul style="list-style-type: none"> <li>Aspects of math that make it a language (use of symbols, a "grammar" etc.)</li> </ul> |
| <i>Human sciences</i> | <ul style="list-style-type: none"> <li>Descartes: Emotion as a consequence of an automatic reaction</li> </ul>    | <ul style="list-style-type: none"> <li>Prediction of human behavior based on cause and effect, statistics</li> </ul>   | <ul style="list-style-type: none"> <li>Experimentation in a controlled environment</li> </ul>   | <ul style="list-style-type: none"> <li>The way of asking a question may influence the answer</li> </ul>                      |
| <i>Ethics</i>         | <ul style="list-style-type: none"> <li>Effect of Emotions on reaching Ethical decisions</li> </ul>                | <ul style="list-style-type: none"> <li>Kant: reason relevant for ethics</li> </ul>   | <ul style="list-style-type: none"> <li>Can personal experience influence ethical decisions? (eg experience of war)</li> </ul>   | <ul style="list-style-type: none"> <li>Language to manipulate opinion on ethical issues</li> </ul>                           |

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**Website:** <http://www.toktalk.net>

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