Way of knowing.

Sense Perception
Introduction:
What is a way of knowing?

Part 1: Sense and Perception as a way of knowing.

Part 2: Perception and observation in Natural Sciences.

Part 3: Perception in Art.
Introduction:
What is a way of knowing?
How do I know?
Each way of knowing has something to do with an Area of Knowledge.

Example:

Sciences (human and natural) has something to do with Reason. You have to think rationally in these topics (no contradictory statements). But they also have to do with Imagination (How a scientist discovers a new Theory). They have to do in Faith, the scientist believes that a phenomenon happens according to a certain order etc.
“Nature ... is inexorable and immutable; she never transgresses the laws imposed upon her, or cares a whit whether her abstruse reasons and methods of operation are understandable to men”

Galileo (1564 1642)

Scientists have to deal with Faith, the scientist thinks a phenomenon will happen with an order he will try to explain.
Scientists have to deal with imagination,
Activity: Find other examples.
In your TOK Essay which associations are you going to use?

Activity: page 79.
Part 1 : Sense and Perception as a way of knowing.

Activity : Use a dictionary and try to define what is a sense, what is a perception. 10min

Example :
-What is the difference between a sensation and a perception?
-What do we mean when we talk about a “common sense”

=> Try to make a mind map with the different meanings.
Perception

Sense

- meaning (of a word, a statement)
- Response to stimuli (sensation)
- Sight, hearing etc.
- Quality of a sensation (cold, warm etc.)
- Capacity to understand (reason)
- Conscience or consciousness
- Observation
- ETC.
Part 1 / Outline.

a- Our senses are Human
b- Our senses are variable
c- Our senses are selective
d- Our senses are interpretative
a- Our senses are Human

ICI

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Ou la

encore
What about Alien?

Conversation between the inhabitant of Sirius and that of Saturn
Tell me how many senses the men of your planet have."We only have 72," said the academic, "and we always complain about it. Our imagination surpasses our needs. We find that with our 72 senses, our ring, our five moons, we are too restricted; and in spite of all our curiosity and the fairly large number of passions that result from our 72 senses, we have plenty of time to get bored."I believe it," said Micromegas, "for on our planet we have almost 1,000 senses; and yet we still have a kind of vague feeling, a sort of worry, that warns us that there are even more perfect beings. I have traveled a bit; and I have seen mortals that surpass us, some far superior.

Chapter II Micromegas, 1752 Volatire (1698 1778)
Think about it.
- Can we see more than animals?
- Is our perception better than someone else?
- Could we imagine Smart beings seeing the world better than us?
Denis Diderot in *Letter on the blind*, tries to explain that our most speculative, abstract idea would have been different if we had one more sense or lacked a sense. Imagine a blind person speak on values (which are supposed to be universal and absolute in the traditional philosophy) Diderot explains a blind person does not have the same morals as the rest of us.

For Diderot, even our more abstract idea depend on our senses.
As to me it has always been very clear that the state of our organs and our senses has a great influence on our metaphysics and our morality, and that those ideas which seem purely intellectual are closely dependent on the conformation of our bodies, I put some questions to the blind man about the virtues and vices. The first thing I remarked was his extreme abhorrence of theft; possibly from two reasons firstly, the facility with which people could steal from him unobserved, and secondly (and still more perhaps), because he could be immediately seen were he to go about filching. Not that he is at any loss to secure himself against that sense which he knows we have above him, or that he is clumsy at hiding what he might steal. Modesty he makes no great account of. If it were not for the weather, against which clothes are a protection, he would hardly understand their use; and he openly admits he cannot see why one part of the body should be hidden rather than another; and still less by what caprice some of those parts should be especially singled out, which from their use and the indispositions to which they are subject ought rather to be kept free.

Diderot, Letter on the Blind. 1773.
b- Our senses are variable

This activity is based on this radio show
Science Friday / NPR
The sweet smell of Science
What does your nose knows?
ACTIVITY : What do I smell? What do I taste?

- Read Page 1
- Everyone draw a table to report the observations later.
- I choose your partner.
- Lets start!
Interpreting Observations 5 minutes.
What sensations did you experience in your mouth? How did these sensations change over time? Could you determine the true flavor of the candy? If so, when? Did your taste sensations change when you opened your nose? What does this tell you about your sense of taste?
Expectations.

Subjects are not likely to identify the flavor of the candy when it is first put it in their mouths; they should, however, recognize a sensation of sweetness or sourness or both. After a minute, some subjects may notice that they can identify the flavor. After opening their noses, most subjects can easily identify the flavor, and the sensations in the mouth become more distinct.
Cultural perspectives and perception.

USE DOC2.

-Why can we say that perception is also a matter of culture perspective?
-Which link can we make between Language and perception?
bearta “heavy going because the ground is bare (without snow) in many places”
boholat “deep snow of varying depth; small (steep) snow-drift on road or where one goes (plural: wave-like, steep, little snow drifts”
casttas “hard snowdrift (smaller than skálvi)”
cearga “snowdrift which is so hard that it bears; crust of drift-snow”
cinus “firm, even snow (but not firm enough to bear)”
dobádat “sticky snow, heavy wet snow”
fáska “snow blown together by the wind, snowdrift (of snow blown along the ground)”
gálja “very slippery going, frozen, slippery surface”
girrat “heavy (of the going in frosty weather, especially when there has been a hard frost after a fall of snow)”
joavggahat "place where the snow lies particularly deep after a fall of snow"
lavki "slippery going: ice covered with loose, dry snow with no foothold"
moarri “the kind of going, surface, when the frozen snow or crust of ice breaks and cuts the legs of horses or reindeer”
muvvlahat “place where people or animals have ploughed through or plunged along in deep snow or a soft bog”

njeagga “ground drift’ (drifting snow which gets blown up from the ground) which covers roads or tracks”
oavluš “depression, hollow, with slushy snow in it, on land or on ice”
opas “untouched, untrodden, covering of snow (where no way or road has been made by walking or driving, or where reindeer have not grazed), deep snow, untrodden reindeer pasture in winter”
rodda “hard going (too little snow)”
sievlla “the state of things when the spring snow is so soft that one sinks in it”
skálvi “big (high, steep and usually hard) snow-drift”
skoarádat “the kind of going in which one hears a grating noise as the kjerris, sleigh, ski passes over a rough surface”
spoatna “hard, firm, snow to drive on (when there is little snow)”
veadahat “place where snow has been blown away; (nearly) bare patch (where the wind has blown away the snow)"
“The senses deceive from time to time, and it is prudent never to trust wholly those who have deceived us even once.”

Rene Descartes - *Metaphysical Meditations.*
Philosophy ... ... or empiricism?

“ALL the perceptions of the human mind resolve themselves into two distinct kinds, which I shall call IMPRESSIONS and IDEAS. The difference between these consists in the degrees of force and liveliness.”

David Hume A Treatise of Human Nature. 1739
<table>
<thead>
<tr>
<th>Question</th>
<th>Rationalism</th>
<th>Empiricism (according to Hume)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do we know from perception?</td>
<td>Nothing seriously. Perception is deceiving us every time.</td>
<td>Perception is our only way to know something about the world.</td>
</tr>
<tr>
<td>What can we be certain from perception?</td>
<td>Nothing. Perception is relative, subjective and most of the time partial.</td>
<td>That the world exist, but we cannot be sure that the world is exactly as we perceive it. (skepticism)</td>
</tr>
<tr>
<td>How can we construct knowledge?</td>
<td>Using Reason which goes beyond appearances and shows us reality.</td>
<td>We can try to construct knowledge, but knowledge is only probability. (skepticism)</td>
</tr>
</tbody>
</table>
c- Our senses are selective

http://theinvisiblegorilla.com/gorilla_experiment.html

Count the number of pass on your paper! Don’t communicate anything to your classmate. You must be Silent.
Perception is selective.

http://theinvisiblegorilla.com/videos.html

« Seing the world as it isn’t. »

http://theinvisiblegorilla.com/videos.html
Descartes - *Metaphysical Meditations*

The piece of wax argument.

 ⇒ Why Descartes says that sensation isn’t perception?

 ⇒ Why Descartes says: “that bodies themselves are not properly perceived by the senses nor by the faculty of imagination, but by the intellect alone”
d- Our senses are interpretative

Optical illusion.

Go to: Theoryofknowledge.net
Select: ways of knowing
Select: Sense – Perception.
Left column, select: How reliable is the knowledge provided to us by our senses?
Answer the questions:

1) What are Hermann von Helmholtz’s ideas concerning perception? (verify Helmotz idea).

2) What is the Gestalt theory? What does it say about perception?
<table>
<thead>
<tr>
<th>Helmoltz</th>
<th>Perception is not only about physiology. Indeed without eyes I cannot see, but without my brain, perception is a chaos.</th>
</tr>
</thead>
</table>
|          | How Helmoltz confirms this statement?  
|          | => Some optical illusions show us that we see something that doesn’t exist in reality. Why? Because our mind constructs the perception. |

<table>
<thead>
<tr>
<th>Gestalt Theory.</th>
<th>Perception is a whole, not an accumulation of several sensations.</th>
</tr>
</thead>
</table>
| Gestalt = shape. | How can we confirm this statement?  
|                  | In a picture we can recognize an object even if this object appears partially. In fact we see the shape first, the details after. |
Think Critically !!

1) There is a difference between what is real and what we perceive! Sharing a perception and seeing where we disagree is a good way to make sure that we don’t hinder of our own point of view.

2) Pay attention, try perceiving not imagining!
Read textbook page 92-93 from “some thinking” ...to “at all”
3) Ask yourself: “Do I see what I am seeing or what I want to believe in?"
4) Disentangle perception and interpretation.

Hitchcock Marnie. 1964

Hitchcock and the false consecution
Conclusion.

We have 5 senses
Sight
Touch
Taste
Smell
Hearing
But perceiving the world is more than having a sensation of it.

- Physiological mechanism
  Sensory system (senses organs + nerves)

- Brain / Mind
  Transforms, constructs and produces an intelligible perception

- Our culture, education, our language give to our perception a meaning.

- Perception = interpretation of the world where we live.