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Syllogism	
Deductive	
Inductive	
A priori	
A posteriori	

Two concerns of philosophy are to clarify the meaning of words and to identify ways of testing for logical coherency. The philosophy of religion examines the general philosophical problems about God and religion. It analyses concepts such as God and eternal life

The Effel tower is in Worthing Worthing is in England Therefore, the Effel tower is in England

Note that there is nothing wrong with the logic here, but there seems to be plenty wrong with the conclusion. What is the problem? Well, one of the premises is untrue. Hence even if the logic is at the conclusion is true. To take account of this problem,

philosophers refer to an argument where the logic is correct, and the premises are true as a **a c** argument.

Using the PowerPoint provided alongside this worksheet, read the syllogisms on slides 5-12 and decide:

- Which are valid / not valid and why?
- Which are sound / not sound and why?

contradicting yourself. N common.

If it rains, I shall get wet I get wet Therefore, it rained.

We know, or could imagine, an instance where I might get wet and it has not rained, in other words although I agreed with the premises, I did not agree with the conclusion.

There are more ways of getting wet than just by being in the rain. Putting this more formally we say that the conclusion does not necessarily follow from the premises. The premises provide some, but not absolute, support for the conclusion. In this example to accept the premises and not accept the conclusion would not be self-contradictory.

So, we now must distinguish between two types of argument presented above. The first type is known as a **c d** argument. A deductive argument is one in which if the premises are true, and the logic is valid, then the conclusion must be true. The second type is known as an **c d** argument. An inductive argument is one in which if the premises are true and the logic is valid, then the conclusion is a logical possibility. This can lead to confusion, however, so be careful. Cole points out that even the great Sherlock Holmes got confused between deduction and induction. Homes prided himself on his deductive reasoning, but in fact he was inductive in his approach. For example, to conclude that someone has a dog because you observe they have dog hair on their trousers is not deduction but is induction. After all, the person could have brushed up against a dog on the way in!

The biggest problem with inductive arguments is that they are always open to doubt and uncertainly. The biggest problem with deductive arguments is it is difficult to establish the original premises, and the conclusions reached are often obvious from the original premises. In fact, the original premises must already contain the conclusion.

Identifying the key premises of a complex argument is a vital task and setting out argument in a formal way of premises and conclusions is also important for darity. Cole s basic checklist give us a due about what we should watch out for:

Are the premises true Is the argument valid (without logical error) If inductive, how persuasive is it?

One problem we need to note regarding inductive arguments is levels of persuasiveness. Something that is convincing to one person might not be convincing to another. We need to be conscious of the various presuppositions each of us holds and how these affect the way we might interpret the evidence.

We must note also that different types of evidence are appropriate to the differing areas under investigation. Think of science. The evidence there involves observation from which an hypothesis, i.e. a suggested explanation, is formed. This is then tested by a series of experiments. If the expected results do not occur, a modified hypothesis is formulated taking into account the new observations, which have come from the experiments. However, if the expected results do occur, that the hypoth disproved. Obviously, the more times the hypothesis

In contrast, historical evidence involves assessing such things as documents, artefacts, and circumstantial evidence, as well as interpreting the evidence. The conclusion reached will be on the scale of different degrees of certainty:

Even the scientific method has become modest in its claims of proof. Scientific laws are increasingly seen as description of what we expect to happen rather than what must happen. Some would argue that nothing could be proved by experimental means since an infinite number of tests would be required. Cole gives the example of iron. Every time we heat it expands. But what about the iron we have not