Aristotle's chief distinction is in the creation of LOGIC as a separate science or discipline. Following are the principal modes of reasoning:

- 1. INDUCTION from the particular to the general, from the part to the whole. Aristotle claims this is major contribution of Socrates. Later induction will form the basis of Bacon's Scientific Method.
- 2. DEDUCTION from the general to the particular, from the whole to the part. This can be demonstrated by the syllogism:

A ---> B major premise: ALL MEN ARE MORTAL

C -> A minor premise: SOCRATES IS A MAN

C -> B conclusion: SOCRATES IS MORTAL

(note: this must follow necessarily. However, a syllogism will be only as valid as its premises are valid.)

- 3. THEORY OF CAUSE ("In all things look to the cause.")
 - a. MATERIAL CAUSE book falls to floor by gravity/weight/pull
 - b. EFFICIENT CAUSE book falls to floor by hand pushing it off
 - c. FORMAL CAUSE book falls to floor by stop-action film showing it does
 - d. FINAL CAUSE (telos) book falls to floor to demonstrate a point

(Each or all of the above may answer the question, why does the book fall to the floor. How many causes = how many angels can balance on the head of a pin.)

- 4. ETHICS the golden mean ("nothing in excess")
- 5. CRITICISM OF PLATO'S DOCTRINE OF IDEAS

beauty / truth / justice / courage / wisdom / temperance
"The universal exists for and shines through the particular."

WILLIAM PACKARD