# THE PHILOSOPHY TOOLKIT

INDUCTIVE REASONING

When philosophers use an argument to decide whether something is rational or not they look at evidence from the world around them in order to come to a conclusion.

In an inductive argument, one also draws a conclusion from certain premises. But the premises do not, and are not intended to, logically entail the conclusion; they are merely supposed to provide the conclusion with **rational support**.

The more peaches you cut open to reveal stones, the more reasonable it is for you to conclude that the next one you will cut contains a stone.

Peach number 1: *contains a stone*

Peach number 2: *contains a stone*

Peach number 3: *contains a stone*

And so on.....

Peach number 1,000 contains a stone.

Conclusion: *All peaches contain stones.*
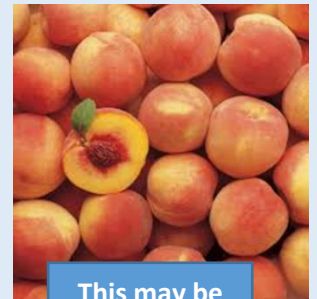
This may be true, but it is possible that it may not be true

Best explanation?

Enumerative induction is not the only form of inductive reasoning: another type is known as "inference to the best explanation". Here, the existence of something may be posited as the best available explanation of something else...

X is observed

The existence of Y provides the best available explanation of X.

Conclusion: Y exists.

- Scientists rely on what they can observe in order to justify their claims. It is inductive reasoning that allows them to do this.
- For example, scientists may not note that every action they have observed has been accompanied by an equal and opposite reaction, and then use enumerative induction to conclude that all actions are accompanied by equal and opposite reactions.