

Week 3 – DNA Discovery – Key

1.

sci·ence

noun

1.

a branch of knowledge or study dealing with a body of facts or truths systematically arranged and showing the operation of general laws: *the mathematical sciences*.

2.

systematic knowledge of the physical or material world gained through observation and experimentation.

3.

any of the branches of natural or physical science.

4.

systematized knowledge in general.

5.

knowledge, as of facts or principles; knowledge gained by systematic study.

3.

The electric bulb was invented / discovered by **Thomas Alva Edison**.

The first antibiotic drug, penicilin, was invented / discovered by Alexander Fleming.

The telephone was invented / discovered by Alexander Graham Bell.

America was invented / discovered by Christopher Columbus.

4. Connect words that go together. There are more possible options.

1) invent	e) a new technique
2) discover	g) a new drug
3) formulate	f) a theory / hypothesis
4) calculate	c) mass / density
5) develop	d) a new machine
6) propose	b) a new law / principle
7) carry out	a) research

5. What was invented / discovered / developed / formulated ... and by whom?

- a) the law of gravity
- c) the structure of DNA
- d) the modern theory of evolution
- e) the theory of relativity
- f) steam engine
- g) radioactivity
- h) x-rays
- i) atomic theory

- 4. Newton, mathematician, physicist
- 6. Watson, Crick and Wilkins, scientists
- 2. Darwin, biologist
- 8. Einstein, physicist
- 5. James Watt, inventor
- 3. Marie Curie, chemist and physicist
- 7. Wilhelm Conrad Rontgen, physicist
- 1. John Dalton, chemist

7. Listening/watching. The DNA Story – 1973.

Listen to Francis Crick speaking about his work at the Cavendish Laboratory and fill in the gaps with the missing words.²

Crick: I wasn't so sure, I think, at that time, as to whether DNA or **protein** was the genetic material. Of course I knew about Avery's **experiments**, and they were very suggestive, but you could **argue** that they weren't watertight. I knew Maurice Wilkins, I'd known him before I went to the Cavendish, and he **was working** on DNA and I'd gone to talk to him, but I didn't actually myself work on it, mainly because at the Cavendish they were working on protein **structure**. So I learnt about polypeptide **chains**, x-ray diffraction, and things of that sort, and essentially continued to be interested in **DNA** rather than doing any experiments or **calculations**.