

Decay, DNA techniques and forensics What type of nutrition do decomposers have?	Decay, DNA techniques and forensics How do decomposers return carbon to the atmosphere?
Decay, DNA techniques and forensics Which conditions speed up decomposition?	Decay, DNA techniques and forensics What is PCR used for?
Decay, DNA techniques and forensics What is the role of primers in PCR?	Decay, DNA techniques and forensics Why is Taq polymerase used?
Decay, DNA techniques and forensics Temperatures and steps of a PCR cycle.	Decay, DNA techniques and forensics Why does DNA move towards the anode in electrophoresis?

They respire the absorbed organic compounds, releasing CO₂.

Saprotrophic: extracellular digestion then absorption.

Amplifying (copying) a specific sequence of DNA from a small sample.

Warmth, moisture, oxygen and a suitable pH.

From *Thermus aquaticus*; heat-stable, so not denatured at 95 °C.

Short single-stranded DNA sequences complementary to the ends of the target, from which Taq polymerase starts.

Phosphate groups make it negatively charged.

95 °C denaturation, 55 to 65 °C annealing, 72 °C extension.

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Which fragments move furthest through the gel?

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What is the purpose of a DNA ladder?

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What does DNA profiling compare?

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How is DNA profiling used to show paternity?

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Give two other uses of DNA profiling.

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Why does the body cool after death?

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Why does rigor mortis occur?

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What is forensic entomology?

Fragments of known lengths, used to estimate the lengths of sample fragments.

The shortest fragments.

Every band in the child must come from the mother or the father; bands not in the mother must be in the father.

The number of short tandem repeats in non-coding DNA, shown as a pattern of bands.

Metabolism stops, so heat is no longer made and the body cools towards the temperature of its surroundings.

Forensic identification of suspects; identifying species or individuals; relatedness in breeding programmes.

Using the species and development stage of insects, such as blowfly larvae, on a body to estimate time of death.

ATP is not made, so myosin heads cannot detach from actin.

What is succession on a dead body?

Different species colonise in a sequence as the body decomposes.