# CAE READING PART 8 – MULTIPLE MATCHING

**2** Read the text again and the tip box. In which section (A–D) are 1–10 mentioned? The underlined words will help you find links to A–D.

a substance that speeds up a natural process 1 ....
a substance that looks weaker than it is 2 ....
someone who takes refuge away from his home 3 .... 4 ....
a substance that enables creatures to secure themselves in place 5 ....
a selfless act with unforeseen consequences 6 ....
someone given a new identity from a young age 7 ....
a creature that hides itself by changing the way it looks 8 ....
someone whose powers are the principle behind a form of transport 9 ....
substances that make physical discomfort less noticeable to the sufferer 10 ....

## A SPIDER-MAN

Spider-Man acquired his superhuman abilities when, during a demonstration of radiation technology, a spider crept into the beam of radiation and bit his hand. As Peter Parker he works as a photographer for *The Daily Bugle*, but as Spider-Man he fights evil in the crime-ridden streets of New York. 5

Spider-Man shoots and spins webs from small jets attached to his wrists and can stick to almost any surface, scaling skyscrapers with his bare hands. So how far can real science go in explaining his powers? Like our superhero, spiders can adhere to almost any surface. Many do this by secreting 10 sticky silk onto their feet, which anchors them in position. Others have millions of specially shaped microscopic hairs on their legs, that slip into nooks and crannies. As for Spider-Man's traps, anyone who has ever walked into a spider's web knows that the silk is deceptively strong, 15 despite its gossamer appearance. Dragline silk, which spiders use to crawl down from ceiling to floor, is the strongest of all; weight for weight it is actually stronger than steel.

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## B SUPERMAN

As a child, Superman was forced to flee his doomed planet, Krypton, eventually landing on Earth where he was adopted under the name Clark Kent. He now works as a mild-mannered newspaper reporter, but whenever danger calls he's a quick change away from saving the world … as Superman. He is faster than a speeding bullet, can fly, has superhuman strength, can leap over tall buildings and has X-ray vision. Superman's cells convert the sun's energy into incredible superpowers – but can scientific fact explain this? While animals have to eat plants (or each other) to survive, plants can harvest their energy directly from the sun's light by photosynthesis. Plants are full of a chemical called chlorophyll that accelerates this reaction. It traps all of the energy we need to live, storing it inside plants until the energy is released inside our bodies after eating. So perhaps Superman is using some form of photosynthesis to build up the tremendous reserves of energy that he needs for his superhuman feats of strength. One thing's for sure – he's not using chlorophyll, because it would turn him bright green!

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## C MAGNETO

Hunted by the X-Men, Magneto was born a mutant in a world that feared and despised his kind. In response he isolated himself from humanity on Asteroid M, preparing for the time when mutants would rule the Earth. Magneto can create electromagnetic fields and control them so that he can levitate all objects made of metal, project force fields and generate electricity. So can science explain his abilities? Iron and steel are magnetic, and are attracted to either the north or south poles of a magnet. Electromagnets are used to make trains that float over the rails; these are easier to move forward than a conventional train, which loses a lot of energy through friction between the rails and wheels. Most materials, including water, are 'diamagnetic', meaning that they are always repelled by both magnetic poles. Since animals are mostly water, scientists have found that if they use a strong enough magnetic field, they could levitate a live frog without hurting it at all.

# D THE INCREDIBLE HULK

As a nuclear physicist, Bruce Banner developed a new gamma bomb for the military. When a reckless teenager strayed onto the bomb test site, Banner saved him – but was caught in the middle himself and transformed into a huge green monster, enormously strong and driven by fury. When angry, Banner now changes into the Hulk, acquiring superhuman strength – and turning green – but with decreased intelligence and an inability to control his temper. At times of stress, humans do sometimes perform great feats of strength. This may be caused by the release of certain hormones in the body which boost the levels of oxygen and fuel available to muscles. Over time, they can even increase muscle bulk. Other natural chemicals can mask the pain that over-stretching muscles may cause, allowing individuals to push their body beyond its natural limits. The Hulk's colour changes may be related to the way animals use colour cells to alter their appearance; the cuttlefish uses this for camouflage, and may even be able to communicate using waves of colour.