IV. LISTENING HOMEWORK

/♫2.03 - 2.04/. Decide what type of information you will need for Questions 1 - 10. Then listen and answer the questions.

Questions 1–6

Complete the table below.

*Write **ONE WORD** for each answer.*

***Spectrum* by Alex Mackenzie**

Title of chapter	Theme	Features
'The hidden jungle'	How an animal's colour and shape can conceal it when it hides or **1**	Has some outstanding **2** ..... .
'A question of choice'	Why people's colour **3** ..... differ from others.	A **4** ..... test which involves readers grading things based on colour.
'It's all in the **5** .....'	How our brain perceives colour.	Describes some **6** ..... that the reader can do.

Questions 7–10

*Choose **TWO** letters, **A–E**.*

Questions 7–8

*According to the book, which of these **TWO** effects are red and orange believed to have on shoppers?*

A They calm you down.
B They make you feel energetic.
C They give you an appetite.
D They make you feel enthusiastic.
E They encourage you to spend more.

Questions 9–10

Which of these TWO colours do people with a limited amount of money respond to the best?

A light blue
B purple
C orange
D pink
E red

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V. READING HOMEWORK

Questions 1–6

The reading passage has six sections, **A–F.**

Choose the correct heading for each section from the list of headings below.

List of headings

i	From the laboratory to the High Street
ii	Seeking royal support
iii	An unexpected but fortunate side result
iv	The healing power of purple
v	An old problem
vi	Standing out from the crowd
vii	Finding an alternative cure for a common illness
viii	Part of a larger family
ix	An ancient manufacturing practice

1 Section A ..... **4** Section D .....

2 Section B ..... **5** Section E .....

3 Section C ..... **6** Section F .....

An Invention to Dye for: the Color Purple

A 19th century research chemist was trying to make medicine when, instead, he came up with a colored dye that has insured the world is a brighter place.

A. Of all the colors, purple has perhaps the most powerful connotations. From the earliest cultures to the present day, people have sought to harness its visual power to mark themselves out as better than those around them. From bishops to kings, pop stars to fashion models, its wearing has been a calculated act of showing off. In ancient Rome, for example, purple was such a revered color that only the emperor was allowed to wear it. Indeed, an emperor who was referred to as *porphyrogenitus* ('born to the purple') was especially important, since this meant that he had inherited his position through family connections rather than seizing power through military force.

B. But why purple? At that time, purple dye was an expensive substance produced in a complicated, foul-smelling and time-consuming process. This involved boiling thousands of mollusks in water in order to harvest their glandular juices. The technique had originally been developed by the Phoenicians over a thousand years previously, and it hadn't changed since. Cheaper but poorer quality purple dyes could be made from lichens using an equally messy and unpleasant procedure, but they were not as bright, and the color quickly faded. It was no surprise, therefore, that good purple dye was a rare and precious thing, and clothes dyed purple were beyond the financial means of most people.

C. However, times have changed. In the great consumer democracy of the 21st century, even the most humble citizen can choose it as the color of their latest outfit. For that privilege, we must thank a young 19th century research chemist, William Perkin. A talented 15-year-old when he entered the Royal College of Chemistry in London in 1853, Perkin was immediately appointed as laboratory assistant to his tutor, August Wilhelm von Hofmann. He became determined to prove Hofmann's claim that quinine, a drug used to treat fevers such as malaria, could be synthesized in a laboratory. However, rather than the cure desperately needed for people dying from malaria in tropical countries, he produced little more than a black, sticky mess that turned purple when dissolved in industrial alcohol. Perkin's experiments could have been a complete waste of time, but to his surprise and, ultimately, financial benefit, his purple liquid turned out to be a long-lasting dye that was to transform fashion.

D. Perkin repeated his experiments in an improvised laboratory in his garden shed, perfecting the process for making the substance he had called mauveine after the French mallow plant. It was, says Simon Garfield, the author or *Mauve* which details Perkin's life and work, an astonishing breakthrough. 'Once you could do that you could make color in a factory from chemicals rather than insects or plants. It opened up the prospect of mass-produced artificial dyes and made Perkin one of the first scientists to bridge the gap between pure chemistry and its industrial applications.' It didn't take long for the chemist, still only 18, to capitalize on his creation, patenting the product, convincing his father and brother to back it with savings,

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and finding a manufacturer who could help him bring it rapidly to the market. The buying public loved it, and clothes colored with purple started appearing in shops up and down the country.

Appropriately, considering the origins of Perkin's color, he was to receive a helping hand from the two most important women of the day. Queen Victoria caused a sensation when she stepped out at the Royal Exhibition in 1862 wearing a silk gown dyed with mauveine. In Paris, Napoleon III's wife, Empress Eugenie, amazed the court when was seen wearing it. To propel the scientist further on the way to a great fortune, the fashion of the time was for broad skirts that, happily for him, needed a lot of his revolutionary new dye.

E. Perkin, ever the serious scientist, would have been among the first to point out that his mauve was just one of a range of colors described in everyday language as purple. Not itself a true color of the spectrum - that position is given to indigo and violet - purple normally refers to those colors which inhabit the limit of human perception in the area between red and violet. Newton excluded the color from his color wheel. Scientists today talk about the 'line of purples' which included violet, mauve, magenta, indigo and lilac.

F. In the alternative medical practice of color therapy, which practitioners say can trace its origins back to ancient India, the 'purple range' colors of indigo and violet are vital. They refer to spiritual energy centers known as chakras and are situated in the head. The colors and their 'medical' qualities were first officially listed by the Swiss scientist Dr Max Luscher, who said that appropriately colored lights, applied to specific chakras, could treat ailments from depression to grief. Julia Kubler is one of Britain's leading color therapists and has been using colors to treat patients at her clinic in Manningtree, Essex, for 15 years. Purple, she says, 'is consistent with intuition and higher understanding, with spirituality and mediation. It combines the coolness of blue with a bit of red that makes it not just passive but active.'

It is hardly the most outlandish of claims for this most enigmatic of colors. Variously touted as the color of everything from insanity to equality, it is enjoying a new role as the symbol of political compromise. Purple may have had its origins in the ancient world, but thanks to a young chemist, it still has a brilliant future.

Questions 7–10

*Choose **TWO** letters, **A–E**.*

Questions 7–8

*What **TWO** points does the writer make about the colour purple and purple dye before William Perkin's creation?*

A It was only used to colour clothes.
B It was originally produced for Roman emperors.
C It was not easy to make.
D There were many different techniques used to make it.
E Some purple dyes were inferior to others.

Questions 9–10

*What **TWO** things about William Perkin are true, according to the passage?*

A He taught Chemistry at a college in London.
B He believed that quinine could be artificially produced.
C He extracted the substance for his dye from a common plant.
D He quickly realised the financial benefits of his new creation.
E He set a new fashion trend for large skirts.

Questions 11–14

Complete the summary below.

*Choose **NO MORE THAN TWO WORDS** from the passage for each answer.*

The purple range of colours plays an essential role in colour therapy, a form of **11** ..... . Colour therapy is said to have originated many years ago in **12** ..... and is still used by colour therapists such as Julia Kubler, who uses it to **13** ..... with various health issues. According to Kubler, purple **14** ..... aspects of two colours, making it both active and passive.

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