4. The physical properties of plant fibres can make them useful to humans
    a. Describe the arrangement of cellulose microfibrils in a plant cell wall, and explain how this relates to the properties of plant fibres
    The cellulose microfibrils are formed in a net-like arrangement meaning they give plant fibres strength
    b. Describe secondary thickening of plant cell walls, and explain how this relates to the properties of plant fibres
    Once some plant structures have finished growing they produce a secondary cell wall between the normal cell wall and the cell membrane, this wall is thicker and has more lignin meaning it makes the plant fibres even stronger
5. A group of students investigated the tensile strength of four different plant fibres. Their results are displayed in the table on the right
    a. Describe a method they could have used to obtain these results
    They have to place the plant fibre within a clamp on which they can hang weights on it. They should add weights slowly until the fibres break and then record their maximum limit. All plant fibres need to be the same and fibres should be repeated and taken from a range of plants to ensure it is generalizable and reliable. Variables such as temperature and humidity must be kept the same to ensure the data is valid and safety measure such as goggles and leaving an area clear for when the weight break through the fibres.
    b. Based on information, which fibre would be more suitable to make a climbing rope? Explain your answer
    Fibre B, this is because it took the most weight before breaking showing it is the strongest fibre, making it more safe to use for a climbing rope