**Outcome 2 Research Task 4 - Name:**

1. What layers does Ethernet operate on?

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| Datalink and physical. |

1. What is the Ethernet LLC sub-layer responsible for?

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| Logical Link Control is used to communicated with the higher layers. |

1. In what is the Ethernet LLC sub-layer implemented?

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| Data link layer |

1. What is the MAC sub-layer responsible for?

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| Checks if the media is carrying signal, if no, then transmits data. |

1. In what is the Ethernet MAC sub-layer implemented?

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| Physical layer |

1. What are the primary responsibilities of the MAC sub-layer?

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| Checks if the media is carrying signal, if no, then transmits data. |

1. What is the MAC address of your PC’s network card

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1. What manufacture does your MAC address identify for your PC?

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| Realtek |

1. Carrier sense multiple access (CSMA) is used in networking. What two methods are used along with it to detect and avoid data collision?

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| Address Resolution Protocol (ARP) and Dynamic Host Configuration Protocol (DHCP) |