Name: \_De Guzman, Patrick P.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Section:\_\_\_\_3 WMAD\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Engaging Activity 1**

|  |
| --- |
| **Instruction:** Enumerate the following  (NOTE: Highlight your text answer with a color of blue.)     1. Provide some currently available emerged technologies   1. Internet of things (IoT)  2.  Artificial intelligence (AI)  3. Augmented reality (AR)  4. Virtual reality (VR)  5. Big data  6. Autonomous systems  7.  Blockchain  8. 5G Technology  9. Quantum Computing     1. Important Inventions of the Industrial Revolution 2. 1. Cloud Computing: Cloud computing allows users to store, access, and process data and applications over the internet instead of relying on local servers or personal devices. It has facilitated scalable and flexible computing resources, enabling the growth of online services, remote work, and data storage. 3. Internet: While the internet itself was developed in the late 20th century, its widespread adoption and evolution in the 21st century have had profound effects on communication, commerce, and access to knowledge, akin to the impact of the steam engine on transportation and manufacturing. 4. Artificial Intelligence: Advances in artificial intelligence (AI) have led to the development of sophisticated algorithms and systems capable of performing tasks that traditionally required human intelligence. AI has the potential to transform various industries, including healthcare, finance, and transportation, much like the impact of the cotton gin on the textile industry during the Industrial Revolution.      1. Four Types of Industries 2. 1 Manufacturing Industry: The manufacturing industry involves the production of physical goods through various processes, such as assembling, processing, or fabricating raw materials or components. This industry encompasses sectors such as automotive, electronics, textiles, food and beverage, and machinery, among others.   2. Service Industry: The service industry revolves around providing intangible services to consumers or businesses. It includes sectors such as hospitality (hotels, restaurants), healthcare, finance, transportation, telecommunications, consulting, and information technology. Service industries are focused on delivering expertise, assistance, or experiences rather than tangible products.  3. Construction Industry: The construction industry is involved in the creation, renovation, and maintenance of buildings, infrastructure, and other physical structures. This sector includes residential, commercial, and industrial construction, as well as specialized areas like civil engineering, architecture, and project management.   1. Extractive Industry: The extractive industry involves the extraction and processing of natural resources from the earth. This sector comprises activities such as mining (including coal, oil, gas, and minerals), forestry (timber), fishing, and agriculture (farming and livestock). The extractive industry plays a vital role in providing raw materials for other industries.      1. Four Basic Kinds of Devices   1. Computers  2. Mobile Devices  3. Home Entertainment Devices  4. Internet of Things (IoT) Devices     1. Provide various types of Sensors   1. Temperature Sensor  2. Heat Sensor  3. Proximity Sensor  4. Light Sensor  5. Humidity Sensor     1. Provide various types of Actuators   1. Electric Actuator  2. Hydraulic Actuator  3. Pneumatic Actuator  4. Thermal Actuator     1. Factors to consider in scaling up the electronics in IoT   1. Scalability  2. Interoperability  3. Power Management  4. Security  5. Data Management  6. Network Infrastructure  7. Cost  8. Regulatory and Compliance Requirements  9. User Experience     1. Common Applications of Microcontrollers   1. Internet of Things (IoT) Devices  2. Industrial Automation  3. Consumer Electronics  4. Automotive Systems  5. Home Automation     1. Microcontrollers utilized in IoT devices   1. Arduino  2. Raspberry Pi |
|  |