

## **TECHNOLOGY-12/13**

### **SELECTIVE UNIT 13 (S13)**

(Projects in Emerging Technology I)  
(July 2017)

**Unit Statement:** As technology is constantly changing, this unit provides a place for the teacher/student to introduce and explore new and emerging technologies or software. The student will identify, research, gain a basic knowledge of, discuss and evaluate these technologies. A student will also explore the impact these new technologies have on information systems, business, and society. A student will research a chosen emerging technology in detail and present their findings to their classmates as to teach others the use and potential of the emerging technology. These may be individual projects, small group projects, or projects for the entire class.

**Essential Outcomes:** (must be assessed for mastery)

1. **The Student Will** research the latest important technologies available.
2. **TSW** develop a heightened attention to emerging technologies and how to track pertinent developments.
3. **TSW** discuss the advantages, disadvantages, and prospects of current emerging technologies.
4. **TSW** present to class, in depth, a chosen emerging technology, based on independent research.
5. **TSW** gain practical experience using emerging technologies.
6. **TSW** explain why it is important to keep up-to-date with emerging technologies.

**Suggested Materials/Software:**

New software and hardware are to be deemed by instructor as appropriate and comprehensive to support the technology. In many cases these software applications can be found without cost and without waiting on the Internet. There may also be reduced school sets that are viable for student exploration.

**Suggested Websites & Activities:**

- Research an emerging technology, putting together a PowerPoint presentation showing its advantages, disadvantages, and potential impact on business or culture.
- Research trends in consumer electronics, search for reviews, blogs, and news articles.
- Acquire new hardware or apps and create an in-depth video review and share with the class or share on the internet.

- Have students select a new or exciting technology and track its development over the next few weeks. Create a news alert using Google Alerts or another news monitoring service and report on the development of this technology over time.
  - Robotics and automation
  - Blockchain technology
  - Mobile tech
  - Virtual reality
  - Skynet
  - Artificial intelligence
  
- Arrange a fieldtrip to a nearby high-tech technology store or business so students can gain practical experience using emerging technologies.
  
- Just a few examples of websites that lists new trends in emerging technology.
  - <https://www.engadget.com/>
  - <http://www.theverge.com/tech>
  - <https://arstechnica.com/>
  - <http://gizmodo.com/>

Destiny Webpath Express (found on QSI schools Library site) use this search engine to find age-appropriate websites that align with this unit.

*ASSESSMENT RUBRIC FOUND ON FOLLOWING PAGE.....*

## Assessment Rubric – S13 – Projects in Emerging Technology I

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

To receive a ‘B’ the student must show ‘B’ level mastery on ALL Essential Outcomes. (TSW’s)

To receive an ‘A’, the student must show ‘A’ level mastery on 4 available and ‘B’ level mastery on all remaining TSW’s.

| TSW   | ‘A’ Level Mastery   | ‘B’ Level Mastery   | ‘P’ Progress |
|---|---|---|--------------|
| 1. Research the latest important technologies available.  | Researches in depth the latest important technologies available. Using appropriate online search strategies. Evaluates web sites before using it as a source.   | Researches the latest important technologies available using basic online search techniques.  |              |
| 2. Develop a heightened attention to emerging technologies and how to track pertinent developments. | Develops a heightened attention to emerging technologies. Not only observes but utilizes techniques on how to track pertinent developments.   | Develops a heightened attention to emerging technologies. Observes ways how to track pertinent developments.  |              |
| 3. Discuss the advantages, disadvantages, and prospects of current emerging technologies.           | Discusses, in depth, the advantages, disadvantages, and prospects of current emerging technologies. Uses examples and makes connections between past, current and future emerging technologies.   | Discusses the basic advantages, disadvantages, and prospects of current emerging technologies.  |              |
| 4. Present to class, in depth, a chosen emerging technology, based on independent research.         | Presents to class, in depth, a chosen emerging technology, based on independent research. Discusses, in depth, the technology’s past (how did it get to this point). Presents clearly the current status and possible future based on the historical development of technologies in the past. | Presents to class, a chosen emerging technology, based on independent research. Provides basic information on the technology’s past, present and possible future.   |              |
| 5. Gain practical experience using emerging technologies.   | Exceptional ability to discover features of emerging technologies while gaining practical experience. Transfers knowledge on how to use other technologies to the use of emerging technologies.   | Consistent ability to use emerging technologies after use is being explained and demonstrated.  |              |
| 6. Explain why it is important to keep up-to-date with emerging technologies.                       | Offers clear, concise and in depth explanations on why it is important to keep up-to-date with emerging technologies. Making appropriate connections with past technologies and providing real-life examples of what can happen when failing to keep up-to-date with emerging technologies.   | Consistent ability to explain the basics of why it is important to keep up-to-date with emerging technologies. Some connections to past technologies and examples of failure to keep up to date are made. |              |