Outline:

Use selected on-line articles to explore current issues related to crypto currencies such as Bit Coin. A focus for learning is: the underlying technologies, impacts on society, and impacts on the environment.

Objectives:

* C1.4 describe how electronic access to information influences our everyday lives.

Electronic access to information influences our everyday lives because that’s where everyone know a day’s get their information and they use their devices for finding out different things. They use their devices for many things such as paying for their needs and wants online. Doing homework and for business people they do their work online.

* C2.1 describe the negative effects of computers and computer use on the environment.

Computers and other devices can harm the environment by polluting the air with the toxic when they get over used and the heat they cause when we use them to much or for to long. They can also cause harm to water and heat and the noise they make. We can make tem harm us from the air we breathe in them from it.

* C3.1 describe legal and ethical issues related to the use of computers.

People use their electronics for good and bad some things that they use for bad is that when they want to use them for purposes for harassing someone, threatening and other issues. For instance, when people use their devices for cyber bullying. They will get the info about the people and then hurt them online by doing mean things to them. And sometimes you cannot find find who that person was.

**Bit Coin & Crypto currencies**

Use the following resource to answer the questions below:

* <https://www.investopedia.com/tech/most-important-cryptocurrencies-other-than-bitcoin/>

1. What is a “crypto currency” and how are “crypto currencies” different from traditional currencies (money)?

Crypto currencies are online money that is used all around the world now and for people that use devices. Online people use these things called bit coins. They take place from called digital money which are tokens used online.

1. Bit Coin is the leading crypto currency that most people know. What are some other crypto currencies and what are their unique features?

Some other crypto currencies used are lite coin, Ethoream, Z cash and many more. Some of their unique features are that lite coin has it has a faster block generation rate and hence offers a faster transaction confirmation. Ethoream has Distributed Applications (D Apps) to be built and run without any downtime, fraud, control or interference from a third party. And the last one I did which is Z cash and that Z cash offers privacy and selective transparency of transactions.

**Block Chains Explained**

Use the following resource to answer the questions below:

* <https://www.investopedia.com/terms/b/blockchain.asp>

1. “Block chains” are the basic technology behind crypto currencies and other emerging technologies. Explain block chains work with respect to:
   1. What they store

-Block chains store information about transactions like the date, time, and dollar amount of your most recent purchases from what you could have purchased.

* 1. How they work

-block chains work by firstly there should be transaction, then he transaction should be verified, next the transaction should be stored in a block and lastly given a hash which is a special code for it.

* 1. How they are secure and private

-they are secure because if in any case there was someone trying to hack something they would not be able to because they would have try to manipulate all the blocks which they would not be able to do.

D. how they use public and private encryption keys

-They use public and private encryption keys by helping others and letting people buy and get and hear hat ever they want ad they will not get hacked and it is a safe place to save and insert things on.

1. How does Bitcoin use block chains?

-bit coins use block chains because that’s where all the information is stored of all the transactions and other things people use.

1. What are some advantages and disadvantages of block chains?

-some advantages of bock chains are that it is a safe and protected place to store what you want to.

-it is also a disadvantage because it could take some time and you will need to store all your things online

**Crypto-Games & Other Applications**

Use the following resource to answer the questions below:

* <https://egamers.io/beginners-guide-to-crypto-games/>

1. What are some interesting Crypto Games (i.e. games that use Block Chain technology) available for Android or iPhone?  
    some games that iPhone use are that are related to crypto currencies are
2. How are Crypto Games different from conventional games?
3. What are some other real-world applications of block chains besides games and crypto currencies?

**BitCoin & Society**

Read the following resources before answering the questions below:

* <https://www.cnet.com/how-to/what-is-bitcoin/>
* <https://www.independent.co.uk/life-style/gadgets-and-tech/news/bitcoin-price-fall-criminals-blockchain-anonymous-cryptocurrency-zcash-monero-dash-a8174716.html>
* <https://coincenter.org/link/why-ransomware-criminals-use-bitcoin-and-why-that-could-be-their-undoing>

1. How is BitCoin created and what is "BitCoin Mining"?
2. Can you buy BitCoin and what does it cost?
3. What can you use BitCoin for?
4. What are the risks of using BitCoin?
5. How much of BitCoin business is related to criminal activity?
6. What are some of the reasons why criminals use BitCoin?
7. What are some of the disadvantages of BitCoin when used for criminal activity?

**BitCoin & The Environment**

Read the following resources before answering the questions below:

* <https://www.cbc.ca/news/business/bitcoin-electricity-1.4668768>
* <https://www.cbc.ca/news/business/hut8-medicine-hat-bitcoin-mining-1.4834027>

1. What is a BitCoin “miner” and why are people concerned about BitCoin mining?
2. Why does BitCoin mining use so much energy?
3. Why has Hut-8 decided to locate its facility in Alberta when its head office is in Toronto? What does the city of Medicine Hat provide that is required for mining BitCoin?
4. What benefits does the city of Medicine Hat expect to see from this BitCoin facility?
5. What concern does the city of Medicine Hat have about from this Bitcoin facility?
6. What concern do environmentalists have about the Medicine Hat facility and about BitCion mining in general? E.g. how does BitCoin mining harm the environment?
7. If Hut-8 wanted to build a facility in Brampton, would be in favor of this proposal? Explain why and why not.