The Journey Inside Notes

**Digital Information**

**Directions:** Using Intel’s “The Journey Inside” website (<http://educate.intel.com/en/TheJourneyInside/ExploreTheCurriculum/EC_DigitalIInformation.aspx>.) take the following notes.

**Lesson 1: What is Binary Code**

* Computers use a special code of their own to express the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ they process.
* The “bi” is binary means \_\_\_\_\_\_\_\_\_\_\_\_.
* Why 0s and 1s? These are the only two numbers us need to express the flow of \_\_\_\_\_\_\_\_\_\_\_\_. On is \_\_\_\_\_\_\_\_ and off is \_\_\_\_\_\_\_\_\_\_\_\_.
* Press Play.
* Name 2 types of codes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Lesson 2: A Bit of This and a Bit of That**

* What do you call one of these 0s or 1s? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Press Play

**Lesson 3: How Computers Work with Pictures**

* Each dot in a picture is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Each pixel is some combination of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* There are \_\_\_\_\_\_\_\_\_\_lines and each line has \_\_\_\_\_\_\_\_\_\_\_\_\_ pixels.
* **Complete Activity.**

**Lesson 4: Binary Numbers**

* The decimal system is a base \_\_\_\_\_\_\_\_\_.
* It has 10 symbols \_\_\_ through \_\_\_\_\_.
* **Complete Activities**

**Lesson 5: Add Binary Numbers**

* The key is carrying the \_\_\_\_\_\_\_\_\_\_, just like you do in decimal (base 10) system addition. Know how you carry a 1 over to the next place column every time two decimal numbers in a place column add up to 10 or more? Adding two binary numbers is just like that too. You carry a 1 over to the next place column every time you \_\_\_\_\_\_ 12 + 12 in a place column—leaving a 0 in that place column. Add three 12 numbers in the same place column and you carry a 1 and leave a 1 in the column.
* Complete activity.

**Lesson 6: ASCII, An Alphabet For Computers**

* ASCII = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* ASCII is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ code.
* **Complete Activities.**

**Lesson 7: Can We Go to the Movies?**

* The word AND requires \_\_\_\_\_\_\_\_ conditions to be \_\_\_\_\_\_\_\_ (in other words, a yes) for the result to happen.
* The word "OR" requires either the \_\_\_\_\_\_\_or the \_\_\_\_\_\_\_\_ statement to be true (a yes) for the result to happen
* **Complete Activity.**