

## **29 September**

### **Computers:**

- 4c: How file compression works and how compression affects the quality of the file.
    - reduces amount of bits in data files
    - refer to duplicate sections of information or refer to repeated blocks of information
      - store a dictionary of duplicates along w/ the information stream
    - what types of compression are there?
    - lossy vs. lossless compression
      - lossy removes unneeded information (ie: colors or tones that don't differ beyond a certain threshold in image or audio files)
- show a sample tarball along with its checksum; get the original data back; show lossy music file
- 4d: Describe 2 computer-chip based devices, and describe how they are smarter because of the chip and its program.
    - cars
    - coffee makers (automated start, etc.)
    - heaters (non-mechanical thermostats)
    - irons (automated shut-off)
    - bread machines
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### **Digital Technology:**

### **Computer Programming:**