CS110

Computer Science

and the

Internet

What is a computer?

Choose the option that best describes the essence of the computer and write it down.

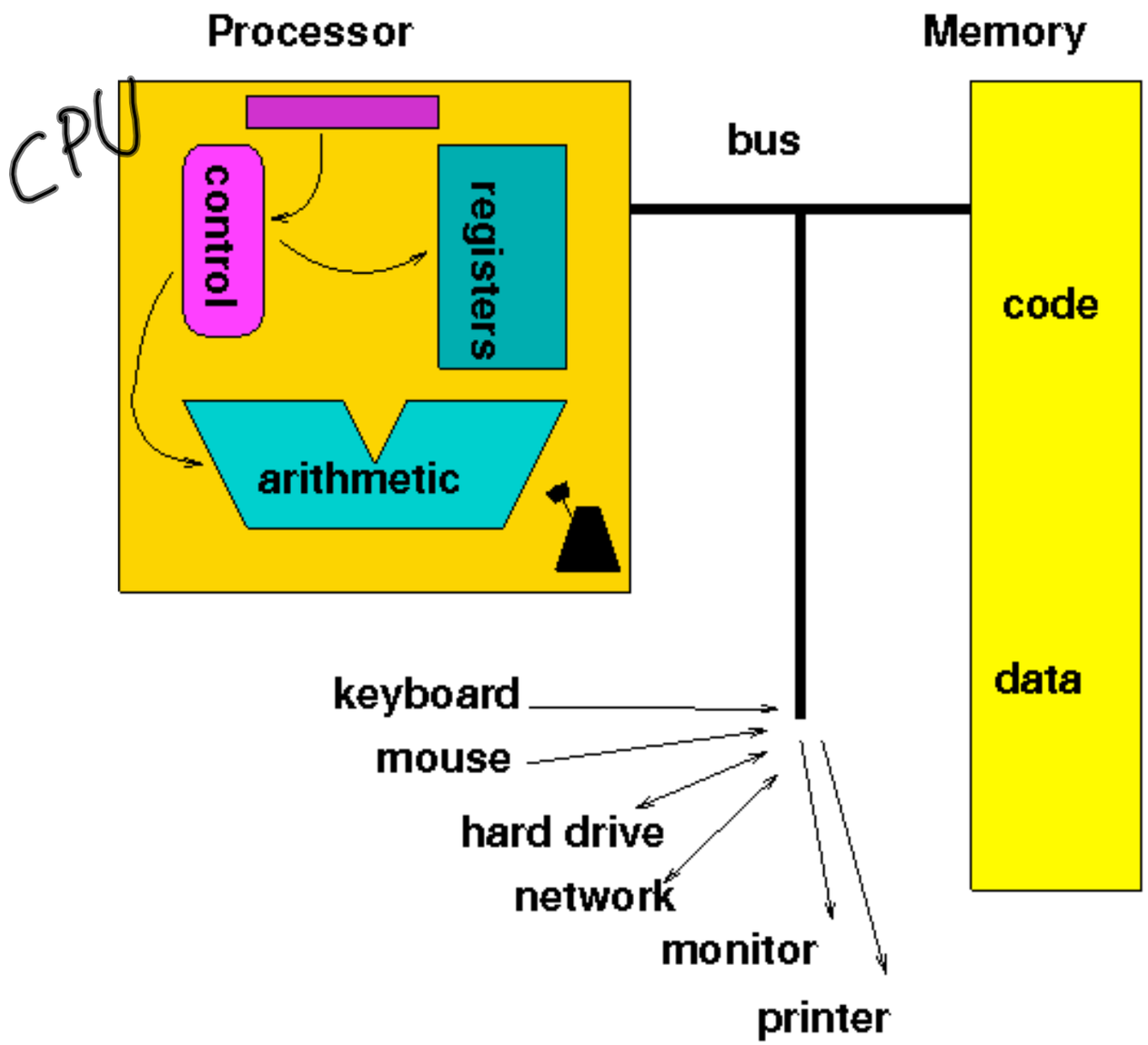
1. a device for communicating with others
2. a device for storing information and programs

✓

3. a device for processing data and information
4. a device for generating information and other content (images, videos, sound, etc.)

Talk to your neighbors and see if you have the same choice. If not, try to convince them that you are right.

The model of a computer



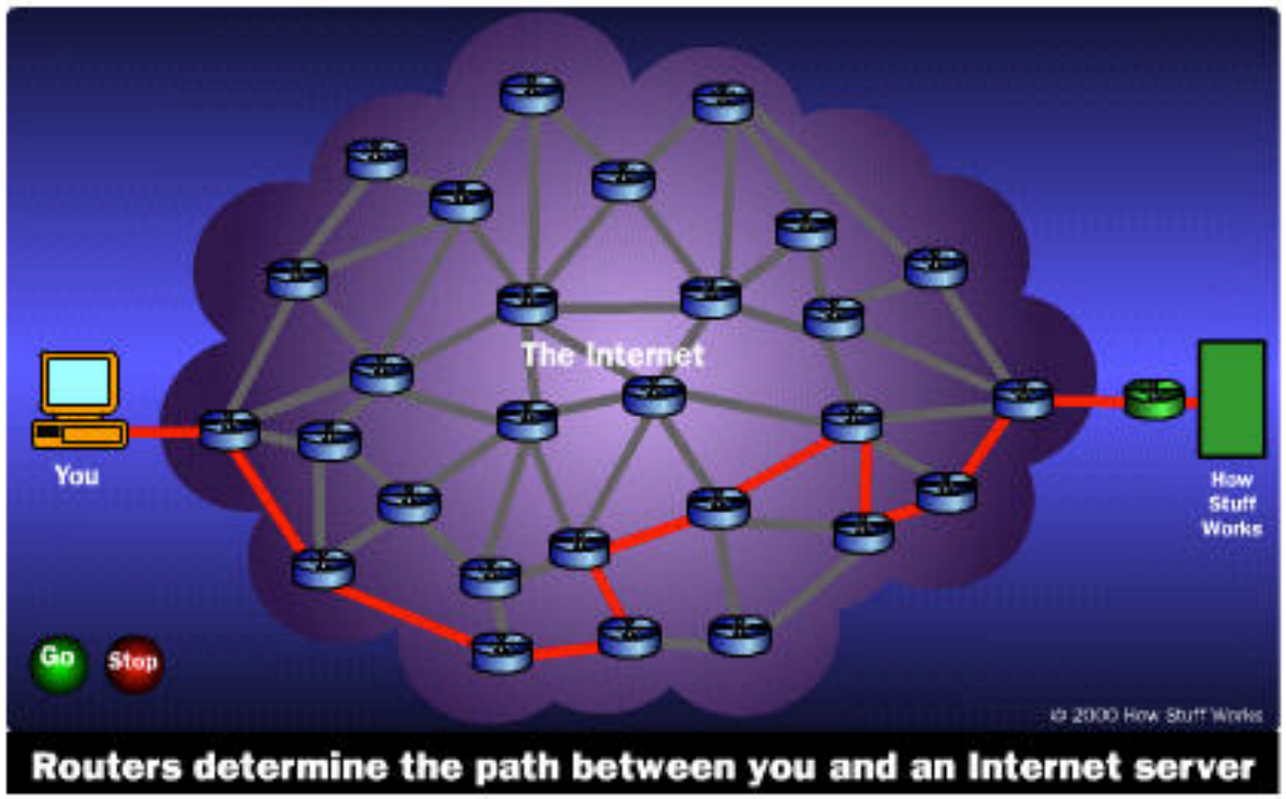
"Computer science is no more about computers than astronomy is about telescopes." - Edsger Dijkstra

What is the Internet?

Choose the option that best describes the essence of the Internet and write it down.

1. the entirety of programs that we need to access online content or communicate (browser, chat client, email client, etc.)
2. the entirety of applications we can access when online (Google, Facebook, YouTube, etc.)
3. ✓ a networked system similar to the automobile highway system
4. the fiber optic networks installed by companies such as Comcast, Verizon, etc.

Simplified model of the Internet



Source: http://homework.uoregon.edu/pub/class/155/switch2.jpg

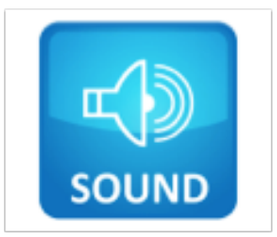
Internet Applications

Choose the option that shows examples of Internet applications write it down.

1. Google, Facebook, Instagram, YouTube, etc.
2. WWW, email, chat rooms, file sharing, etc.
3. HTTP, FTP, VoIP, MIME, etc.
4. HTML, JPEG, GIF, Flash, MP3, etc.

Big Idea #1: Digital Representation

- How do we represent many kinds of information?
- How can we keep information private?
- How can we compress information?



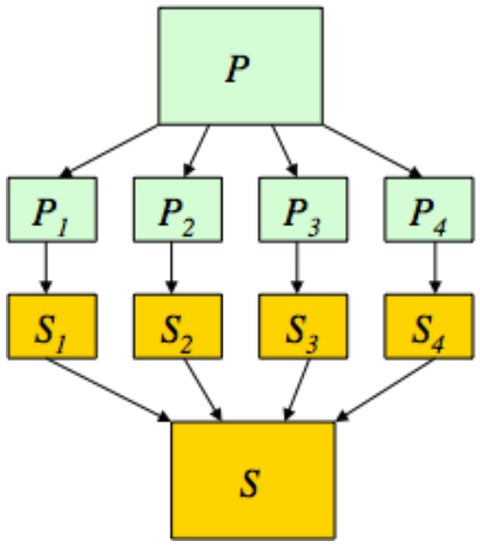
Big Idea #2: Impact of Digital Revolution

- How does access to information impact society?
- How does it impact you?
  - > Privacy
  - > Security
  - > Intellectual property

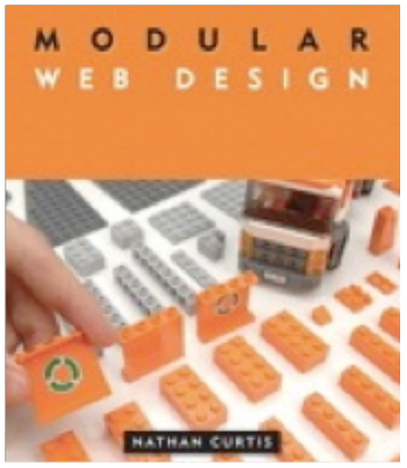
Source: http://graphicleftovers.com/search/digital-revolution

Big Idea #3: Problem-solving

- Strategies for designing large complex websites.



Divide-conquer-glue



Modularity facilitates reusability

Big Idea #4: Project Development Life

- Form a team
- Find a client
- Specify requirements
- Design, implement and test
- Deliver
- Present

HTML
CSS

jQuery
write less, do more.
JavaScript