

CD/DVD Technology

Research Organizer

I. Purpose. *What function does the hardware play in the computer?*

- What does the CD/DVD player do?
- What does a CD/DVD burner do?
- Why should we care about CDs and DVDs?

II. Terminology. *What vocabulary is specific to this hardware?*

- What is the difference between a CD, CD-R, and CD-RW?
- What is the difference between DVD +R, DVD -R, and DVD Double Layer?
- What is the difference between external and internal CD burners?
- How much information can a CD hold?
- How much information will a DVD hold?
- What is the difference between data and music CDs?
- Explain the speeds of a CD burner, i.e. 48X, 24X?

III. Components. *What are the components or parts of the piece of hardware?*

- Explain the parts of a CD/DVD drive
 - the read, write and erase lasers
 - drive motor
 - tracking system

IV. Working. *How do the components work together to make the piece of hardware function?*

- What are the layers of a stamped CD, a CD-R and a CD-RW?
- How are bits stored on a CD/DVD? What about on a re-writable disk?
- How does the laser read the bits of the different CD types?
- Why do you lose a CD-R if it stops mid burn? Do you lose a CD-RW if it stops mid burn?
- How is the data spiraled onto the CD?
- What are the physical and storage difference between a CD / DVD / BluRay / HD-DVD?
- What are the different lasers are in a CD / DVD / BluRay – RW player used for?

V. History. *How has your piece of hardware changed over the past 15 years?*

- How old are CD players?
- How old are CD burners?
- How old are DVD players?
- Use the speed of CD burners to explain their history.
- How much do CD/DVD burners cost?
- How much do blank CD-Rs, CD-RWs, and DVD-Rs cost?
- What are Blue-ray and HD-DVD disks?

VI. Future. *How do you think your piece of hardware will change in the future?*

- What is the future of CDs?
- What is the future of DVDs?
- Is there anything that may replace them?