

## Progression to learn subnetting and VLSM: (August-April)

1. Be able to explain what is the purpose of subnetting
2. Learn how to convert decimal to binary, binary to decimal
3. Memorize the three IP class ranges: A-C
4. Memorize the three classes of default subnet masks
5. Know how to determine a network address from the IP's subnet mask
6. Be able to describe the "anding" process
7. Learn how to differentiate between classful and classless addresses
8. Learn how to address a network with a classful addressing scheme
9. Learn how to borrow bits from host section
10. Learn how to identify a subnet/segment in a physical topology map
11. Learn the "magic number" method of subnetting
12. Learn how to use the "magic number" method to solve for either subnets or hosts
13. Perform simple class C subnetting
14. Perform simple class B subnetting
15. Perform simple class A subnetting
16. Learn how to find the answer to a given subnet scenario using different known values
17. Be able to define VLSM – describe what it is
18. Learn how to analyze a VLSM problem and rank to host needs from greatest to least
19. Learn how to create a table to set up the VLSM problem to be solved
20. Be able to use the information from the table to use the VLSM chart method
21. Transfer the information from the VLSM chart to the VLSM solution using network address and CIDR notation.
22. Learn how to use the magic number chart to solve a VLSM problem
23. Be able to configure a network using information from the VLSM solution