

Suggested standards to use for ½ credit graduation course:

**Algorithms and Programming:**

(algorithms): 6-8.AP.A.1, 9-12.AP.A.1  
(program development): 6-8.AP.PD.2, 6-8.AP.PD.4, 9-12.AP.PD.2, 9-12.AP.PD.4  
(variables): 6-8.AP.V.1  
(control): 6-8.AP.C.1, 9-12.AP.C.1, 9-12.AP.C.2  
(modularity): 6-8.AP.M.2, 9-12.AP.M.1

**Computing Systems:**

(hardware/software):6-8.CS.HS.1, 9-12.CS.HS.1  
(devices): 6-8.CS.D.1, 9-12.CS.D.1  
(troubleshooting): 9-12.CS.T.1

**Data and Analysis:**

(storage): 9-12.DA.S.1, 9-12.DA.S.2  
(collection/visualization/transformation): 6-8.DA.CVT.1, 9-12.DA.CVT.1  
(inference/models): none

**Impacts of Computing:**

(culture): 6-8.IC.C.1, 6-8.IC.C.2, 9-12.IC.C.1, 9-12.IC.C.2  
(social interactions): 9-12.IC.SI.1  
(safety. Law, and ethics): 6-8.IC.SLE.1, 9-12.IC.SLE.2, 9-12.IC.SLE.3

**Networks and the Internet:**

(cybersecurity): 6-8.NI.C.1, 9-12.NI.C.1  
(network/communication/organization): 9-12.NI.NCO.1

Total standards selected: 32 out of the 55 available for MS/HS  
MS standards total: 13  
HS standards total: 19

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½ credit course - 18 weeks

1. Suggest 9 weeks of digital citizenship, productivity tools refresh and/or deeper dive
2. Suggest 9 weeks of computer science and computational thinking (as listed above)

**CS/CT Topics covered within these standards chosen:** flowcharts, creating prototypes, giving attribution, using libraries, collaborating and project mgmt, working in teams to develop an artifact, creating variables, designing programs with loops and conditionals, justifying the selection of control structures, designing artifacts to address a societal issue, using procedures with parameters, exchanging data, abstraction within system software/hardware layers, recommending improvements to a device based on user analysis, how to identify and fix

errors, where data is stored, collect and visualize data, discuss bias and accessibility, test artifacts to reduce bias, evaluate ways people use computing, identify risks with identity theft/hacking, evaluate privacy concerns, explain security measures needed to protect data, and describe relationship between routers and switches.

CS Discoveries covers many of these standards and more.

There may be overlap with Digital Citizenship when it comes to privacy, security, and risks to theft/hacking topics.