

Time Frame: 6 weeks	Unit Title: The Internet	Course Name: Technology and Society
Stage 1 - Desired Results		
Established Goals	Transfer	
NH Computer Science Standards	<i>Students will be able to independently use their learning to...</i> Make and influence decisions for themselves and for their community about how the Internet should be developed, structured, and used.	
<i>NI - Networks & the Internet</i>	Meaning	
2-NI-04 - Model the role of protocols in transmitting data across networks and the Internet. 3A-NI-04 - Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing. 3B-NI-03 - Describe the issues that impact network functionality (e.g., bandwidth, load, delay, topology).	UNDERSTANDINGS <i>Students will understand that....</i> <i>Computing systems and networks facilitate the transfer of data.</i> <i>The Internet is built on open protocols which allow the Internet to be reliable and to scale.</i> <i>The use and availability of the Internet has the potential to benefit and harm different stakeholders.</i> <i>The technical structure and design of the Internet contributes to the impacts on different stakeholders.</i>	ESSENTIAL QUESTIONS <i>Students will keep considering...</i> <i>What is the Internet?</i> <i>What aspects of the Internet's design and development have helped it perform essential functions, scale, and maintain reliability?</i> <i>How does the Internet impact personal, ethical, social, economic, and cultural practices?</i>
<i>IC – Impacts of Computing</i>	Acquisition	

<p>3A-IC-24 - Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.</p> <p>3A-IC-28 - Explain the beneficial and harmful effects that intellectual property laws can have on innovation.</p> <p>3A-IC-30 - Evaluate the social and economic implications of privacy in the context of safety, law, or ethics.</p> <p>3B-IC-26 - Evaluate the impact of equity, access, and influence on the distribution of computing resources in a global society.</p> <p>3B-IC-28 - Debate laws and regulations that impact the development and use of software.</p> <p>Common Core State Standards for English Language Arts</p> <p><i>Speaking and Listening</i> 6-12</p>	<p><i>Students will know...</i></p> <ul style="list-style-type: none"> • Abstraction • Computing device • Computing system • Computing network • Path • Bandwidth • Protocol • IP Address • Internet Protocol • Router • Redundancy • Fault Tolerant • Packet • User Datagram Protocol (UDP) • Transmission Control Protocol (TCP) • Datastream • Packet metadata • HTTP • Scalability • The Domain Name System (DNS) • Internet • The Worldwide Web • Digital Divide • Net Neutrality • Internet Censorship 	<p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> • <i>Explaining how computing devices work together in a network.</i> • <i>Describing how internet protocols contribute to scalability and fault tolerance.</i> • <i>Explaining the structures and protocols of the internet that are involved in delivering world wide web content to a computing device</i> • <i>Describe the benefits and harms of Internet societal issues (digital divide, net neutrality, internet censorship, etc.) to different impacted groups</i> • <i>Describe the technical aspects of the internet that are involved in internet societal issues (digital divide, net neutrality, internet censorship, etc.).</i>
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1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

Writing Standards 6-12

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

6. Use technology, including the Internet, to produce, publish, and

update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.		
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