



Computational Thinking

Module 1

| CONTENT | L.O. | AGE |
|---|-------------------|--------------------------------------|
| Definition of Computational Thinking | | |
| Learning Outcomes (L.O.) | | |
| Vocabulary | | |
| Lockbox Meditation (Optional) | See activity | Age 4-6 th Gr. |
| Be a Robot! | Primary/Secondary | Age 4-6 th Gr. |
| Creating a Program | Primary | Age 4-6 th Gr. |
| Conditional Adventure | Primary | 2 nd -6 th Gr. |
| Conditional Adventure Story | | |
| Conditional Adventure Diagram Key | | |
| Conditional Adventure Worksheet | | |
| Mouse Maze Activity | Secondary | Age 4-1 st Gr. |
| Mouse Maze Worksheet | | |
| Get Programmed! | Secondary | 2 nd -6 th Gr. |
| Get Programmed! Command Cards | | 2 nd -6 th Gr. |
| LEGO Maze Activity | Secondary | K-6 th Gr. |
| LEGOS Mazes #1- #5 | | K-6 th Gr. |
| LEGO Maze Worksheet | | 2 nd -6 th Gr. |
| Mice for Mazes | | Age 4-6 th Gr. |
| Robot Coloring Page | | |
| Trainer Notes | | |

Module 1- Computational Thinking

Definitions and Learning Outcomes (L.O.)

1. Computational Thinking (CT) is defined as the process required to understand a problem, the way to find appropriate and effective solutions, and the testing and implementing of the solution. Use of logic, patterns, and assessment of methods are all part of CT. This module also focuses on the vocabulary associated with CT.

2. The four stages of computational thinking involve (1) stating the problem in a way that a logical process or computer could solve- commonly done using conditional statements. (2) organizing the process and data, (3) creating models/simulations to identify bugs, (4) placing solutions into a series of logical sequential steps.

PRIMARY LEARNING OUTCOMES: By the end of the class, students can:

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| Age 4-1st grade |
| Create and contrast sequential solutions or algorithms for problems, and associate this with computer coding. |
| 2nd-4th grade |
| Create and contrast sequential solutions or algorithms for problems, and associate this with computer coding. |
| 5th-6th grade |
| Create and contrast sequential solutions or algorithms for problems, and associate this with computer coding. . |

SECONDARY LEARNING OUTCOMES: By the end of class students can:

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| Age 4-1st grade |
| Correctly use or define two or more of the vocabulary terms used in completed activities. |
| 2nd-4th grade |
| Correctly use or define three or more of the vocabulary terms used in completed activities. |
| 5th-6th grade |
| Correctly use or define four or more of the vocabulary terms used in completed activities. |



Online Safety and Ethics

Module 2

| CONTENT | L.O. | AGE |
|---|---------------------|---------------------------------------|
| Definition of Safety and Ethics | | |
| Learning Outcomes (L.O.) | | |
| Vocabulary | | |
| Breathing Meditation (Optional) | See activity | Age 4 - 6 th Gr. |
| L.A.S.T. Discussion | Primary & Secondary | Age 4 - 6 th Gr. |
| L.A.S.T. Coloring Page | | |
| Digital Ethics | Primary | 2 nd -6 th Gr. |
| What Would You Do Memory Game | Primary | Age 4 - 1 st Gr. |
| Memory Game Pictures | | |
| What Would You Do? | Primary & Secondary | Age 4 - 6 th Gr. |
| What Would You Do? #1 – Situations to Discuss | | Age 4 - 6 th Gr. |
| What Would You Do? #1 - Talking Points | | Age 4 - 6 th Gr. |
| What Would You Do? #2 - Situations to Discuss | | 2 nd - 6 th Gr. |
| What Would You Do? #2 - Talking Points | | 2 nd - 6 th Gr. |
| Share or Not Share? | Primary | 2 nd - 6 th Gr. |
| Mother May I? | Secondary | Age 4 - 6 th Gr. |
| Trainer Notes | | |

Module 2: Online Safety & Ethics

Definition and Learning Outcomes (L.O.)

1. Online Safety is the knowledge and ability needed to avoid risks to one’s physical, emotional, and financial well-being while using technology. Being safe online means avoiding identity theft, predators, scams, phishing, bullies, malware, trolls, etc.

2. The ethics in this module focus on dealing with emotions and thoughts that arise following a negative experience while using technology and responding appropriately.

PRIMARY LEARNING OUTCOME: By the end of the class, students can:

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| Age 4-1st grade |
| Identify safe choices and appropriate responses when using technology |
| 2nd-4th grade |
| Identify safe choices and appropriate responses when using technology. |
| 5th-6th grade |
| Identify safe choices and appropriate responses when using technology. |

SECONDARY LEARNING OUTCOME: By the end of class students can:

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| Age 4-1st grade |
| Identify and acknowledge feelings that arise when confronted with a negative technology experience. |
| 2nd-4th grade |
| Identify and acknowledge feelings that arise when confronted with a negative technology experience. |
| 5th-6th grade |
| Identify and acknowledge feelings that arise when confronted with a negative technology experience. |



Digital Communication

Module 3

| CONTENT | L.O. | AGE |
|---|---------------------|---------------------------------------|
| Definition of Computational Thinking | | |
| Learning Outcomes (L.O.) | | |
| Vocabulary | | |
| Muscle Meditation (Optional) | See activity | Age 4 - 6 th Gr. |
| That's Good, That's Bad? | Primary | Age 4 - 6 th Gr. |
| That's Good, That's Bad? Monotone Story | | |
| What Is Really Being Said? | Primary | 2 nd - 6 th Gr. |
| What Is Really Being Said? Texts | | |
| Decoding Emojis | Primary | Age 4 - 6 th Gr. |
| Decoding Emojis Emoji Examples | | |
| GIF Fairy Tale | Primary | Age 4 - 1 st Gr. |
| GIF Fairy Tale Pictures | | |
| Emoji Life Story | Primary | 2 nd - 6 th Gr. |
| Emoji Life Story Worksheets | | |
| What Does It Meme? | Primary & Secondary | Age 4 - 6 th Gr. |
| What Does It Meme? Pictures to Caption | | |
| TXT SPK It | Primary & Secondary | Age 4 - 6 th Gr. |
| Living Facebook Feed | Primary & Secondary | 2 nd - 6 th Gr. |
| Facebook Feed Example | | |
| Emoji Page for student reactions | | |
| Trainer Notes | | |

Module 3: Digital Communication

Definition and Learning Outcomes

1. Digital Communication is the ability to electronically send information via a device that can access the Internet. It includes producing or revising content as well as uploading, downloading, sharing and making comments. Digital Communication has allowed ideas and information to be shared on an unprecedented level. Digital information such as email has virtually replaced writing and mailing letters.

PRIMARY LEARNING OUTCOME: By the end of the class, students can:

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| Age 4-1st grade |
| Relate ways digital communication and etiquette differs from face-to-face communication and etiquette. |
| 2nd-4th grade |
| Relate ways digital communication and etiquette differs from face-to-face communication and etiquette. |
| 5th-6th grade |
| Relate ways digital communication and etiquette differs from face-to-face communication and etiquette. |

SECONDARY LEARNING OUTCOME: By the end of class students can:

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|---|
| Age 4-1st grade |
| Correctly use or define two or more of the vocabulary terms used in completed activities. |
| 2nd-4th grade |
| Correctly use or define three or more of the vocabulary terms used in completed activities. |
| 5th-6th grade |
| Correctly use or define four or more of the vocabulary terms used in completed activities. |



Media Literacy

Module 4

| CONTENT | L.O. | AGE |
|--|---------------------|---------------------------------------|
| Definition of Media Literacy | | |
| Learning Outcomes (L.O.) | | |
| Vocabulary | | |
| Sensory Walk (Optional) | See activity | Age 4 - 6 th Gr. |
| Who, What, When, Where, Why & My | Primary & Secondary | Age 4 - 1 st Gr. |
| Who, What, When, Where, Why & My Short Stories | | |
| What's the Scoop? | Primary | Age 4-1 st Gr. |
| What's the Scoop? | Primary & Secondary | 2 nd - 6 th Gr. |
| What's the Scoop? News Stories | | |
| Two Truths and a Lie | Primary | 2 nd - 6 th Gr. |
| No-Screen Video | Primary | 2 nd - 6 th Gr. |
| No-Screen Video Worksheet | | |
| Unicorn Coloring Page | | |
| Trainer Notes | | |

Module 4: Media Literacy

Definition and Learning Outcomes

1. Media literacy provides a framework to access, analyze, evaluate, create, and participate with messages in a variety of forms, from print to video, to the internet. Media Literacy builds an understanding of the role of media in society as well as essential skills of inquiry and self-expression necessary for citizens of a democracy. (<http://medialit.org/media-literacy-definition-and-more>)

2. Media literacy focuses on the critical analysis and responsible use of messages in multimedia. See: https://www.aspeninstitute.org/wp-content/uploads/2010/11/Digital_and_Media_Literacy.pdf

PRIMARY LEARNING OUTCOME: By the end of the class, students can:

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| Age 4-1st grade |
| Learn to apply age-appropriate critical thinking to online media and communication. This includes evaluating all forms of media and considering the purpose, accuracy and possible bias of the creator, and possible bias in one's self. |
| 2nd-4th grade |
| Learn to apply age-appropriate critical thinking to online media and communication. This includes evaluating all forms of media and considering the purpose, accuracy and possible bias of the creator, and possible bias in one's self. |
| 5th-6th grade |
| Learn to apply age-appropriate critical thinking to online media and communication. This includes evaluating all forms of media and considering the purpose, accuracy and possible bias of the creator, and possible bias in one's self. |

SECONDARY LEARNING OUTCOME: By the end of class students can:

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| Age 4-1st grade |
| Learn how to check media content using sites devoted to fact checking, and sites which provide verifiable facts. |
| 2nd-4th grade |
| Learn how to check media content using sites devoted to fact checking, and sites which provide verifiable facts. |
| 5th-6th grade |
| Learn how to check media content using sites devoted to fact checking, and sites which provide verifiable facts. |



Digital Wellness

Module 5

| CONTENT | L.O. | AGE |
|--|---------------------|---------------------------------------|
| Definition of Digital Wellness | | |
| Learning Outcomes (L.O.) | | |
| Vocabulary | | |
| Focus Exercise: Saying No (Optional) | See activity | Age 4 - 6 th Gr. |
| Focus Exercise Document: Types of Nos | | |
| Healthy Downtime | Primary | Age 4 - 6 th Gr. |
| Healthy Downtime | Primary | 2 nd - 6 th Gr. |
| Silly Consequences Word Game | Primary & Secondary | 2 nd - 6 th Gr. |
| Silly Consequences "If" and "Then" Statements | | |
| Silly Consequences Answer Worksheet | | |
| Digital S.M.A.R.T. Goals | Secondary | 2 nd - 6 th Gr. |
| Digital S.M.A.R.T. Goal Worksheet | | |
| Digital S.M.A.R.T. Art Project: Draw... | Secondary | 2 nd - 6 th Gr. |
| Digital S.M.A.R.T. Art Instructions and Example | | |
| Digital Wellness Mad Lib | Primary | Age 4 - 6 th Gr. |
| Digital Wellness Mad Lib #1 | | |
| Digital Wellness Mad Lib #1 Worksheet | | |
| Digital Wellness Mad Lib #2 | | |
| Digital Wellness Mad Lib #2 Worksheet | | |
| I Will Take Care of My Body Coloring Page | | |
| Trainer Notes | | |

Module 5- Digital Wellness

Definition and Learning Outcomes

1. Digital Wellness is an intentional pursuit of emotional, mental, social, and physical health in our technological age whether the use is at school, work, in one’s home or pocket. The user needs to understand why and how to maintain a proper lifestyle balance of online and offline hours that ensures time for sufficient physical activity, sleep, nutrition, and mental downtime.

2. Some aspects of Digital Wellness are covered in Modules 2 and 4 (Online Safety and Digital Literacy). Being digitally healthy includes the ability to avoid online dangers such as identity theft, scams, and malware. It also includes an understanding of how advertisers use emotion and false paradigms, (their product will bring happiness, beauty, friendship, etc.) and how overuse of social media and other sites can have a negative effect on self-image and well-being.

PRIMARY LEARNING OUTCOMES: By the end of the class, students can:

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| Age 4-1st grade |
| Identify and explain reasons for personal healthy lifestyle choices, including appropriate use and self-regulation of technology. |
| 2nd-4th grade |
| Identify and explain reasons for personal healthy lifestyle choices, including appropriate use and self-regulation of technology. |
| 5th-6th grade |
| Identify and explain reasons for personal healthy lifestyle choices, including appropriate use and self-regulation of technology. |

SECONDARY LEARNING OUTCOMES: By the end of class students can:

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|--|
| Age 4-1st grade |
| Create goals appropriate to their developmental level and understand how these goals can help them accomplish tasks and learn associated skills. |
| 2nd-4th grade |
| Create goals appropriate to their developmental level and understand how these goals can help them accomplish tasks and learn associated skills. |
| 5th-6th grade |
| Create goals appropriate to their developmental level and understand how these goals can help them accomplish tasks and learn associated skills. |



Using Tech for Good

Module 6

| CONTENT | L.O. | AGE |
|--|---------------------|---------------------------------------|
| Definition of Digital Wellness | | |
| Learning Outcomes (L.O.) | | |
| Vocabulary | | |
| Positive Mottos (Optional) | See activity | Age 4 - 6 th Gr. |
| Positive Mottos to Decorate | | |
| What Do Animals Leave Behind? | Primary & Secondary | Age 4 - 1 st Gr. |
| What Do Animals Leave Behind Answer Sheet/Tracks | | |
| Digital Detective | | |
| Digital Detective Worksheet | | |
| Technology As a Tool | Primary | Age 4 - 1 st Gr. |
| Technology as a Tool Hammer Picture | | |
| Technology As a Tool Resources | Primary & Secondary | 2 nd - 6 th Gr. |
| Technology as a Tool Full Resource List | | |
| Seeing Beyond the Screen | Primary & Secondary | 2 nd - 6 th Gr. |
| Seeing Beyond the Screen Visual Aid | | |
| Super Internet Citizen | Primary & Secondary | 4 th - 6 th Gr. |
| Super Internet Citizen Scenarios | | |
| The Importance of Empathy | | Age 4 - 6 th Gr. |
| The Importance of Empathy Dialogue for Puppets & Part II | | |
| The Importance of Empathy Puppets and Mask | | |
| Emoji Matching Game Cards | | |
| Trainer Notes | | |

Module 6 - Using Tech for Good

Definitions and Core Standards

1. Digital technology is defined as electronic systems and devices that produce, share, store, and process data. The internet has a vast wealth of content and possible interactions, can have a powerful effect on our limbic systems, and has unprecedented influence in the world today. It is an ever-present and increasingly important part of our lives. Therefore, it is critical to learn how to use this technology as a force for good.

2. In order to have a positive technological impact on ourselves and others, we must be able to (1) identify the effect of media on our thoughts and emotions, (2) learn ways to empathize with the feelings and situations of others, (3) show self-regulation in how we respond to others, (4) intentionally filter out negative content, (5) understand what social media algorithms are and their effect; and (6) find, share and foster positive content.

PRIMARY LEARNING OUTCOMES: By the end of the class, students can:

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|---|
| Age 4-1st grade |
| Understand reasons to use technology mindfully and responsibly, such as digital permanence and the power to create a positive or negative effect in the world |
| 2nd-4th grade |
| Understand reasons to use technology mindfully and responsibly, such as digital permanence and the power to create a positive or negative effect in the world |
| 5th-6th grade |
| Understand reasons to use technology mindfully and responsibly, such as digital permanence and the power to create a positive or negative effect in the world. |

SECONDARY LEARNING OUTCOMES: By the end of class students can:

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|--|
| Age 4-1st grade |
| Understand that empathy and etiquette are just as important while using technology as they are in face-to-face communication. |
| 2nd-4th grade |
| Understand that empathy and etiquette are just as important while using technology as they are in face-to-face communication. |
| 5th-6th grade |
| Understand that empathy and etiquette are just as important while using technology as they are in face-to-face communication. |