Idaho Technology

Grades 3-5

COMPUTATIONAL THINKING (CT)

Computing Systems

1 Identify, using accurate terminology, simple hardware and software problems and apply strategies for solving these problems. 3-5.CT.1.1

2 Create step-by-step instructions that models intelligent behavior on computing devices. 3-5.CT.1.2

3 Recognize and utilize the features and functions of a variety of creation or communication tools. 3-5.CT.1.3

4 Create original works and learn strategies for remixing or repurposing to create new artifacts. 3-5.CT.1.4

Data and Analysis

1 Use outcome data to solve a problem or answer a question. 3-5.CT.2.1

2 Understand how computers encode and store data. 3-5.CT.2.2

3 Collect feedback from both people and features embedded in digital tools and use age-appropriate technology to share learning. 3-5.CT.2.3

4 Explore or solve problems by selecting technology for data analysis, modeling and algorithmic thinking. 3-5.CT.2.4

5 Select effective technology to represent data. 3-5.CT.2.5

6 Navigate age-appropriate technologies and begin to transfer their learning to different tools or learning environments. 3-5.CT.2.6

Impacts of Computing

1 Demonstrate and encourage respect for intellectual property with both print and digital media when using and sharing the work of others. 3-5.CT.3.1

2 Demonstrate an understanding of what personal data is, how to keep it private and how it might be shared online. 3-5.CT.3.2

3 Communicate ideas textually visually and graphically. 3-5.CT.3.3

4 Consider their expected audience when creating and sharing digital artifacts and presentations. 3-5.CT.3.4

5 Choose tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally. 3-5.CT.3.5

Networks and the Internet

1 Demonstrate how a device on a network sends and receives information. 3-5.CT.4.1

Algorithms and Programming

1 Identify and understand ways that teamwork and collaboration can support problem solving and the software design cycle. 3-5.CT.5.1

2 Construct and test problem solutions using block-based and or text-based programming. 3-5.CT.5.2

3 Generate a list of sub-problems to consider while addressing a larger problem. 3-5.CT.5.3

4 Explain that computer program design is an iterative process that includes the following steps: define the problem, generate ideas, build a program, test the program, improve the program. 3-5.CT.5.4

5 Explain and debug the sequencing in an algorithm. 3-5.CT.5.5

6 Construct an algorithm to accomplish a task. 3-5.CT.5.6

7 Break down problems into smaller parts, identify key information, and propose solutions. 3-5.CT.5.7

8 Understand and explore basic concepts related to automation, patterns and algorithmic thinking. 3-5.CT.5.8

9 Use digital and nondigital tools to plan and manage a design process. 3-5.CT.5.9

DIGITAL LITERACY (DL)

Empowered Learner

1 Analyze a variety of resources for accuracy, perspective, credibility, and relevance using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others. 3-5.DL.1.1

Digital Citizen

1 Practice responsible digital citizenship using positive, safe, legal and ethical behaviors in the use of technology systems and software. 3-5.DL.2.1

2 Explain ethical issues that relate to equity of access, accessibility, security, privacy, copyright, digital citizenship, digital footprint, and intellectual property with computers and networks. 3-5.DL.2.2

Knowledge Constructor

1 Identify how computational devices impact daily life. 3-5.DL.3.1

2 Gather, manipulate, and evaluate digital data to explore a real-world problem that is of interest to the student. 3-5.DL.3.2

3 Explore the connections between computer science and other fields. 3-5.DL.3.3

Global Collaborator

1 Generate examples of how the use of computing can affect society and how society can influence the use of computing. 3-5.DL.4.1