# Kindergarten Technology Curriculum

Revised 7/2025

NJSLS Standards

8.1.2.CS.1, 8.1.2.CS.2, 8.1.2.CS.3, 8.1.2.NI.1, 8.1.2.NI.2, 8.1.2.NI.3, 8.1.2.NI.4, 8.1.2.IC.1, 8.1.2.DA.1, 8.1.2.DA.2, 8.1.2.DA.3, 8.1.2.DA.4, 8.1.2.AP.1, 8.1.2.AP.2, 8.1.2.AP.3, 8.1.2.AP.4, 8.1.2.AP.5, 8.1.2.AP.6, 8.2.2.ED.1, 8.2.2.ED.2, 8.2.2.ED.3, 8.2.2.ED.4, 8.2.2.ITH.1, 8.2.2.ITH.2, 8.2.2.ITH.3, 8.2.2.ITH.4, 8.2.2.ITH.5, 8.2.2.NT.1, 8.2.2.NT.2, 8.2.2.ETW.1, 8.2.2.ETW.2, 8.2.2.ETW.3, 8.2.2.ETW.4, 8.2.2.EC.1

## 8.1 Computer Science

- Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
- Explain the functions of common software and hardware components of computing systems.
- Describe basic hardware and software problems using accurate terminology.
- Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network.
- Describe how the Internet enables individuals to connect with others worldwide.
- Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others.
- Explain why access to devices needs to be secured.
- Compare how individuals live and work before and after the implementation of new computing technology.
- Collect and present data, including climate change data, in various visual formats.
- Store, copy, search, retrieve, modify, and delete data using a computing device.
- Identify and describe patterns in data visualizations.
- Make predictions based on data using charts or graphs.
- Model daily processes by creating and following algorithms to complete tasks.
- Model the way programs store and manipulate data by using numbers or other symbols to represent information.
- Create programs with sequences and simple loops to accomplish tasks.
- Break down a task into a sequence of steps.
- Describe a program's sequence of events, goals, and expected outcomes.
- Debug errors in an algorithm or program that includes sequences and simple loops.

## 8.2 Design Thinking

- Communicate the function of a product or device.
- Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
- Select and use appropriate tools and materials to build a product using the design process.
- Identify constraints and their role in the engineering design process.
- Identify products that are designed to meet human wants or needs.
- Explain the purpose of a product and its value.
- Identify how technology impacts or improves life.
- Identify how various tools reduce work and improve daily tasks.

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- Design a solution to a problem affecting the community in a collaborative team and explain the intended impact of the solution.
- Model and explain how a product works after taking it apart, identifying the relationship of each part, and putting it back together.
- Brainstorm how to build a product, improve a designed product, fix a product that has stopped working, or solve a simple problem.
- Classify products as resulting from nature or produced as a result of technology.
- Identify the natural resources needed to create a product.
- Describe or model the system used for recycling technology.
- Explain how the disposal of or reusing a product affects the local and global environment.
- Identify and compare technology used in different schools, communities, regions, and parts of the world.

Extended Activities

1. **ABCya Game: *Keyboard Zoo* and *ABCya Paint*** - Objective: Strengthen basic keyboarding and mouse navigation.
   Have students play Keyboard Zoo to match letters with animals. Practice mouse control with ABCya Paint by drawing shapes and coloring scenes. Let students write their name using the keyboard, then draw a picture of themselves using Paint.

2. **Counting & Number Recognition** - ABCya Game: *Counting Fish* or *Fuzz Bugs Counting*
   Objective: Develop number sense and counting skills
   Activity: Students count fish or bugs and drag them into groups. The teacher guides students to say the numbers aloud while counting. Use number cards and have students match the card to the number of objects in the game.

Gifted and Talented

1. **Creative Storytelling** - ABCya Game: *Story Maker*
   Objective: Encourage creativity and digital storytelling
   Activity: Students draw a picture and write a simple sentence using the ABCya Story Maker. The teacher helps students type their name and basic sentence ("I see a cat.") Print out stories for a class storybook and have students read their story with assistance.