



Grades K–2

3.5.K-2.R Technology and Engineering: Integration of Knowledge, Technologies, and Practices

Students who demonstrate understanding can draw connections between technology and human experiences.

Clarifying Statement: Young children learn to count through nursery rhymes and playing with manipulatives. Children's books often include graphics and some even generate sound. Teachers can have students identify technological connections from their homes, traveling in vehicles, and other experiences, and through this help young students understand the role of technology in their lives.

Assessment Boundary: N/A

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Technology and Engineering Practices (TEP)
<p>Asking Questions and Defining Problems Asking questions and defining problems in K–2 builds on prior experiences and progresses to simple descriptive questions that can be tested.</p> <ul style="list-style-type: none"> Define a simple problem that can be solved through the development of a new or improved object or tool. 	N/A	<p>Systems Thinking</p> <ul style="list-style-type: none"> Learns that human-designed things are connected.

Pennsylvania Context: Examples of Pennsylvania context include but are not limited to robotic industries and agriculture industries.

Pennsylvania Career Ready Skills: Identify multiple ways to solve conflicts and practice solving problems.

Connections to Other Standards Content and Practices

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
PA Core Standards: Reading and Writing in Science and Technical Areas	CC.1.4.K.U: With guidance and support, explore a variety of digital tools to produce and publish writing or in collaboration with peers. CC.1.4.1-2.U: With guidance and support, use a variety of digital tools to produce and publish writing including in collaboration with peers. CC.1.4.K.V: Participate in individual or shared research projects on a topic of interest. CC.1.4.1-2.V: Participate in individual or shared research and writing projects. CC.1.4.K-1.W: With guidance and support, recall information from experiences or gather information from provided sources to answer a question. CC.1.4.2.W: Recall information from experiences or gather information from provided sources to answer a question. CC.1.5.K-2.A: Participate in collaborative conversations with peers and adults in small and larger groups.
PA Core Standards and Practices: Math	MP.2: Reason abstractly and quantitatively. MP.4: Model with mathematics. MP.5: Use appropriate tools strategically.



**Science, Technology &
Engineering, and
Environmental Literacy &
Sustainability Academic
Standards**

N/A