



Grades K–2

3.5.K-2.V Technology and Engineering: Core Concepts of Technology and Engineering

Students who demonstrate understanding can *explain that materials are selected for use because they possess desirable properties and characteristics.*

Clarifying Statement: Paper, wood, cloth, cardboard, and found objects are the most common materials young children use in making the items they design. By working with materials, they learn through observation and testing which materials perform better for given tasks.

Assessment Boundary: N/A

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Technology and Engineering Practices (TEP)
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. <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. 	Structure and Properties of Matter <ul style="list-style-type: none"> Different properties are suited to different purposes. Defining Engineering Problems <ul style="list-style-type: none"> A situation that people want to change or create can be approached as a problem to be solved through engineering. 	Communication <ul style="list-style-type: none"> Learns that humans have many ways to communicate.

Pennsylvania Context: Examples of Pennsylvania context include but are not limited to waste removal and recycling facilities.

Pennsylvania Career Ready Skills: Demonstrate respect for the uniqueness of others.

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