

# ITEEA Standards Alignment

## Student Standards



### Legend

•	The standard is clearly addressed by program activities.
-	This standard potentially could be addressed as part of FIRST® LEGO® League Discover either by actions that the coach or teacher takes when working with the students or by conditions established by the program.

### Grades K-2

Cluster	Indicator	Indicator Statement	Addressed
The Nature of Technology	1	Students will develop an understanding of the characteristics and scope of technology.	-
	A	<i>The natural world and human-made world are different.</i>	-
	B	<i>All people use tools and techniques (technology) to help them do things.</i>	-
	2	Students will develop an understanding of the core concepts of technology.	-
	A	<i>Some systems are found in nature, and some are made by humans.</i>	-
	B	<i>Systems have parts or components that work together to accomplish a goal.</i>	-
	C	<i>Tools are simple objects that help humans complete tasks.</i>	-
	D	<i>Different materials are used in making things.</i>	•
	E	<i>People plan in order to get things done.</i>	-
	3	Students will develop an understanding of the relationships among technologies and the connections between technology and other fields of study.	-
A	<i>The study of technology uses many of the same ideas and skills as other subjects.</i>	-	
Technology and Society	4	Students will develop an understanding of the cultural, social, economic, and political effects of technology.	-
	A	<i>The use of tools and machines can be helpful or harmful.</i>	-
	5	Students will develop an understanding of the effects of technology on the environment.	-
	A	<i>Some materials can be reused and/or recycled.</i>	-
	6	Students will develop an understanding of the role of society in the development and use of technology.	-
	A	<i>Products are made to meet individual needs and wants.</i>	-
	7	Students will develop an understanding of the influence of technology on history.	-
A	<i>The way people live and work has changed throughout history because of technology.</i>	-	
Design	8	Students will develop an understanding of the attributes of design.	•
	A	<i>Everyone can design solutions to a problem.</i>	•
	B	<i>Design is a creative process.</i>	•
	9	Students will develop an understanding of engineering design.	•
	A	<i>The engineering design process includes identifying a problem, looking for ideas, developing solutions, and sharing solutions with others.</i>	•
	B	<i>Expressing ideas to others verbally and through sketches and models is an important part of the design process.</i>	•
	10	Students will develop an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.	•
	A	<i>Asking questions and making observations helps a person to figure out how things work.</i>	•
	B	<i>All products and systems are subject to failure. Many products and systems, however, can be fixed.</i>	-

Abilities for a Technological World	11	Students will develop abilities to apply the design process.	●
	A	<i>Brainstorm people's needs and wants and pick some problems that can be solved through the design process.</i>	●
	B	<i>Build or construct an object using the design process.</i>	-
	C	<i>Investigate how things are made and... can be improved.</i>	●
	12	Students will develop abilities to use and maintain technological products and systems.	●
	A	<i>Discover how things work.</i>	●
	B	<i>Use hand tools correctly &amp; safely &amp; name them correctly.</i>	
	C	<i>Recognize and use everyday symbols.</i>	
	13	Students will develop abilities to assess the impact of products and systems.	-
	A	<i>Collect information about everyday products and systems by asking questions.</i>	-
B	<i>Determine if the human use of a product or system creates positive or negative results.</i>	-	
The Designed World	14	Students will develop an understanding of and be able to select and use medical technologies.	-
	A	<i>Vaccinations protect people from getting certain diseases.</i>	-
	B	<i>Medicine helps people who are sick to get better.</i>	-
	C	<i>There are many products designed specifically to help people take care of themselves.</i>	-
	15	Students will develop an understanding of and be able to select and use agricultural and related biotechnologies.	-
	A	<i>The use of technologies in agriculture makes it possible for food to be available year round and to conserve resources.</i>	-
	B	<i>There are many different tools necessary to control and make up the parts of an ecosystem.</i>	-
	16	Students will develop an understanding of and be able to select and use energy and power technologies.	-
	A	<i>Energy comes in many forms.</i>	-
	B	<i>Energy should not be wasted.</i>	-
	17	Students will develop an understanding of and be able to select and use information and communication technologies.	-
	A	<i>Information is data that has been organized.</i>	-
	B	<i>Technology enables people to communicate by sending and receiving information over a distance.</i>	-
	C	<i>People use symbols when they communicate by technology.</i>	-
	18	Students will develop an understanding of and be able to select and use transportation technologies.	-
	A	<i>A transportation systems has many parts that work together to help people travel.</i>	-
	B	<i>Vehicles move people or goods from one place to another in water, air or space, and on land.</i>	-
	C	<i>Transportation vehicles must be cared for to prolong use.</i>	-
	19	Students will develop an understanding of and be able to select and use manufacturing technologies.	-
	A	<i>Manufacturing systems produce products in quantity.</i>	-
B	<i>Manufactured products are designed.</i>	-	
20	Students will develop an understanding of and be able to select and use construction technologies.	-	
A	<i>People live, work, &amp; go to school in buildings, which are of different types: houses... office buildings, &amp; schools.</i>	-	
B	<i>The type of structure determines how the parts are put together.</i>	-	