	Strand: Creativity and Innovation												
	Substrand: Innovative Design Process												
Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Rationale				
•	novationinnovative	ISTE 4 Innovative Designer											
	rocess to solve authe	•	or a local or glob	oal audience using		dent takes an active		Students use a variety of technologies within a					
· ·							design process and	_	design process to identify and solve problems by				
							valuate solutions c	_	creating new, useful or imaginative solutions.				
							nd global perspecti	ves. The student					
						is expected to:			ISTE 1 Empowered Learner Student leverage				
									technology to incorporate				
									CCRS C for problem-solving and D Academic				
									Behaviors				
									CSTA inferences, models, algorithms				
									CSTA interences, models, algorithms				
NEW (A)	NEW (A) identify	NEW (A)	NEW (A)	NEW (A)	NEW (A) create	NEW (A) utilize	NEW (A) utilize	NEW (A) utilize	TEKS Chapter 120, Character Traits				
identify	beneficial	connect	develop	develop	personal	goal setting	goal setting and	goal setting and					
beneficial	character traits	beneficial	personal	personal	character and	and personal	personal	personal	MA Standards 4.d Students demonstrate				
character	and dispositions	character	character	character and	group goals	character	character	character	perseverance when working with open-ended				
traits and	to set personal	traits and	goals and	group goals	such as	growth	growth	growth	problems				
dispositions to	goals through	dispositions	use	such as	demonstrating	independently	independently	independently					
set personal	guided discussion	in order to	feedback to	demonstrating	compassion	such as	such as	such as	MA Standards students articulate personal				
goals through	to support the	set personal	reflect and	perseverance	and tolerance	demonstrating	demonstrating	demonstrating	learning goals, select, and manage appropriate				
guided	design processes	goals and use	make	and flexibility	while giving	courage and	responsibility	calculated risk-	technologies to achieve them, and reflect on their				
discussion to		guided	decisions	while	feedback and	confidence to	and appropriate	taking and	success and areas of improvement in working				
support the		reflection to	through the	receiving	making	resolve	self-advocation	tolerance to	toward their goals.				
design		analyze their	design	feedback and	decisions	challenges in	to resolve	innovate using	ICTE 4 F				
processes		progress	processes	making	through the	design	challenges in	design	ISTE 1 Empowered Learner - setting goals and				
		through the design		decisions through the	design	processes	design	processes	reflecting and 4d Innovative Designer - tolerance for ambiguity, perseverance,				
		processes		design	processes		processes		ioi ambiguity, perseverance,				
		processes		processes					CCRS D - Academic Behaviors and E - Work Habits				
									Habits of Mind by Arthur L. Costa				

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NEW (B) use a	NEW (B) use a	NEW (B)	NEW (B)	NEW (B) apply	NEW (B) apply	NEW (B)	NEW (B) discuss	NEW (B) discuss	Students understand that these components	
guided design	guided design	apply a	apply an	an	an appropriate	discuss and	and implement	and implement	connect into a larger design process that becomes	
process to	process to	design	appropriate	appropriate	design process	implement a	a design process	a design process	cyclical in nature. Students should develop an	
identify and	identify and solve	process to	design	design process	including	design process	to plan and	to plan and	understanding of multiple design process models.	
solve	authentic	identify and	process	using	components to	using digital	select digital	select digital	Students should recognize multiple solutions to a	
authentic	problems with	solve for	using	components	generate	tools to	tools to develop	tools to	problem and be able to evaluate them.	
problems with	components such	authentic	components	such as	multiple	compare,	and refine a	develop, test,		
components	as asking	problems	such as peer	utilizing	solutions for an	contrast, and	prototype or	evaluate design	ISTE 1.4. know and use a deliberate design process	
such as asking	questions,	with	and teacher	feedback to	authentic	evaluate	model through	limitations, and	for generating ideas, testing theories, creating	
questions,	brainstorming, or	components	feedback to	improve and	problem and	student-	trial and error	refine a	innovative artifacts or solving authentic problem	
brainstorming,	storyboarding to	such as	create new	refine	develop	generated		prototype or		
or	generate ideas	testing and	and useful	processes and	original	outcomes		model and how	CCRS Foundational Skills - Writing across the	
storyboarding	and develop	reflecting to	solutions for	original	products using			the design	curriculum and CCRS solving a problem standards	
to generate	original products	create new	authentic	products for	digital tools			process is used		
ideas and	using digital tools	and useful	problems	authentic	and resources			in various	MA Standards K-2 ETS1-1	
develop	and resources	solutions and	and develop	problems				industries		
original		develop	original	using digital					CSTA K-12 standards: inferences, models, and	
products using		original	products	tools and					algorithms	
digital tools		products	using digital	resources						
resources		using digital	tools and							
		tools and	resources							
		resources								

Strand: Creativity and Innovation										
					ging Technologies					
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							rations and concept	s Creativity and	This concept is picked up in grades 6 through 8.	
						innovationeme	rging technologies	. The student	Removed concepts that are not addressed.	
						demonstrates a	thorough understa	nding of the role		
							roughout history a	•		
							technology. conce p			
						operations. The student is expected to:				
						6.6.H (A)	7.6.H (A)	8.6.H (A)	Retained	
						discuss how	explain how	evaluate how	Social Studies 6.20 the student understands the	
						changes in	changes in	changes in	influences of science and technology on	
						technology	technology	technology	Contemporary Societies.	
						throughout	throughout	throughout	Social Studies 7.20 Technological innovations	
						history have	history have	history have	political, economics, and social development of	
						impacted	impacted	impacted	Texas	
						various areas	various areas of	various areas of	Social Studies 8.28 The students understands the	
						of study;	study;	study;	impact scientific discoveries and technological	
									innovations on daily life in the U.S.	
									Drien knowledge from Copiel Studies Coiseas and	
									Prior knowledge from Social Studies, Science, and literature allows students to handle these skills	
discuss how						NEW (D)	NEW (B) explain	NEW (B)		
changes in						NEW (B) discuss how	how global	evaluate and	Rogers, E. (2003). Diffusion of Innovation (5th ed.). New York, Y; Free Press, Simon & Schuster	
technology						global trends	trends impact	predict how	Inc. Bosch-Sijtsema, P., Claeson-Jonsson, C.,	
throughout						impact the	the	global trends	Johansson, M. and Roupe, M. (2021), "The hype	
history have						development	development of	impact the	factor of digital technologies in AEC",	
impacted						of technology	technology	development of	Construction Innovation, Vol. 21 No. 4, pp. 899-	
various areas						or teermology	Commondy	technology	916. X. Chen and T. Han, "Disruptive Technology	
of study;									Forecasting based on Gartner Hype Cycle," 2019	
, , , , , , , , , , , , , , , , , , , ,									IEEE Technology & Engineering Management	
									Conference (TEMSCON), 2019, pp. 1-6, doi:	
									10.1109/TEMSCON.2019.8813649.	

Strand: Creativity and Innovation										
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						6.4.F (C)	7.4.F C. (C)	8.4.F C. (C)	Retained	
						transfer	transfer current	transfer current		
						current	knowledge to	knowledge to		
						knowledge to	the learning of	the learning of		
						the learning of	newly	newly		
						newly	encountered	encountered		
						encountered	technologies.	technologies.		
						technologies.				
K-2.1.A apply										
prior										
knowledge to										
develop new										
ideas,										
products, and										
processes;										
K-2.1.B create			3-5.1.A create			6.1.B create	7.1.B create and	8.1.B create,		
original			original	(original works	present original	present, and		
products using			products using			as a means of	works as a	publish original		
a variety of			a variety of			personal or	means of	works as a		
resources;			resources;			group	personal or	means of		
						expression;	group	personal or		
							expression;	group		
								expression;		

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						6.1.C explore	7.1.C explore	8.1.C explore	Subsumed in new (B) in Innovative design	
						complex	complex	complex	process.	
						systems or	systems or	systems or	Both substrandsexplore complex systems or	
						issues using	issues using	issues using	issues using new technologies - emerging	
						models,	models,	models,		
						simulations,	simulations, and	simulations, and	explore complex systems or issues using models,	
						and new	new	new	simulations, develop hypotheses, modify input,	
						technologies to	technologies to	technologies to	and analyze results - innovative	
						make	make	develop		
						predictions,	predictions,	hypotheses,	defining complex systems	
						modify input,	modify input,	modify input,		
						and review	and review	and analyze		
						results; and	results; and	results; and		
			3-5.2.A draft,			6.4.B plan and	7.4.B plan and	8.4.B plan and	Subsumed in Innovative Design Process Student	
			edit, and			manage	manage	manage	Expectation (B). Computer programming is	
			publish			activities to	activities to	activities to	covered by computational thinking. The planning	
			products in			develop a	develop a	develop a	and managing activities are covered in the	
			different			solution,	solution, design	solution, design	innovative design substrand.	
			media			design a	a computer	a computer		
			individually			computer	program, or	program, or		
			and			program, or	complete a	complete a		
			collaboratively;			complete a	project;	project;		
						project;				
						6.4.E make	7.4.E make	8.4.E make	Creativity - Innovative Design - Cyclical design	
						informed	informed	informed	process refining	
						decisions and	decisions and	decisions and		
						support	support	support	This is addressed in the Innovative Design Process	
						reasoning; and	reasoning; and	reasoning; and	substrand	