## RIALTO UNIFIED SCHOOL DISTRICT CURRICULUM PROPOSAL

Name of Course: Inn		Grade Level(s):				7-8	
	Brief Course Description:						
This course fosters inn of the design process i	ovative thinking, improv ncluding need recognitio	es problem so n, conceptua	olving, and p lization, and	provides con lysis and pr	text. This o ototyping	ourse	includes element
Proposed By: Rosalyn Reyes/DrVince Roll		ns School:	Frisbie Middle Sch		ool D	ate:	December 3, 201
	The Follo	wing is Prop	osed for th	is Course:			
✓ Addition       ☐ Revision         ☐ Required Course       ☐ Conter         ✓ Elective       ☐ Name		1855	☐ A – G ☐ Honors ☐ Vocational		]	_	Deletion Name of Course
	The Following Maxi	mum Credits	are Propos	sed for this	Course:		
Units of Credi	Semest	ester or in:			Elective		
	The Follow	ing Schools	will Offer th	is Course:			E TO SERVICE A S
☐ Frisbie Middle ☐ Jehue Middle					ra Middle Rialto Middle		Rialto Middle
	The Proposed Course	will have the	Following	Budget Imp	lication:		
Individual School Site: District Level: Total Estimated Cost:	Student Materials- \$26 Materials - \$6 Total \$3,3	<u>000</u> 59					
0::11	Approval Sig	natures for t		ed Course:			
Printed Name Paulina Villabos	Signature Subm		Title School Department Chair		Yes/	es/No Date	
Vince Rollins	1- 1/10	Frisbie Middle School Principal		⊠ Yes	□No	11-27-19	
Carolyn Eide	Barolyn Eide	Jehue Middle School Principal		Yes	□No	11-27-19	
armando Untero +	+ Utaga	Kolb Middle School Principal		Yes	□No	11-27-19	
Exanne Domingues &	RODE /	Kucera Middle School Principal		Yes	No	11-27-19	
Romis Mimily	Rialto Middle School Principal		Principal	Yes	☐ No	11-27-19	
Paulina Villalobos	District Curriculum Committee Chair		ttee Chair		□No	11-18-19	
		Curriculum Council Chair		☐ Yes	☐ No	12-33-19	
Approved by Curriculum (		lum Committe	ee on (Date	)	118/18	7	
approved by Rialto Unifie		1)-					
approved by UC (or N/A)		//-					
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Course: Innovation Studio Transcript Title: InStudio

School:

Subject Area: STEM Elective (Middle School)

Grade Level: 7<sup>t</sup> & 8

**Brief Course Description**: This course fosters innovative thinking, improves problem solving, and provides context. This course includes elements of the design process including need recognition, conceptualization, analysis and prototyping..

Course Goals: To emphasize creativity, innovation, teamwork, problem solving, communication, engineering ethics, safety, self-reflection and the skills necessary to practice engineering in any discipline

Resource(s): Innovation Studio, by Dr. Ed Sobey, Enterprise Pathways Inc.

# **Course Outline**

## Unit 1: Build The Team

- Build the team by Building the Tower
- Can you make the Tower taller
- Design and Build a Bridge
- Present your Ideas
- Who is leading the Parade?
- Say What?
- Is that your Bag?
- By the People, For the People

### Unit 2: Innovative Tactics

- Rules- Do we need Them?
- Well, some Rules might help!
- Goodbye George
- Scamper about
- Observe by Looking Around
- Be Harold
- Your favorite Toy
- Nominate a Toy
- Prototype 1
- Prototype 2
- Prototype 3: The Shopping Cart
- Finding the Problem
- Spark your Creativity
- Keep it Simple

## Unit 3: Innovation Methods

- The Lone Ranger Matrix
- Innovative Productivity
- Make Mistakes
- And to Think That I Saw it on Mulberry Street
- Advertising A Product
- Invent Backward
- Creative Talk Bubbles
- The First Rule of Innovation : Take Advantage of Good Luck
- The First Rule of Science and the Eureka Moment
- Steal Ideas
- Your Turn
- What's That Called?

### Unit 4: Innovation Fitness

- Make a Raceway
- Make an Elevator
- Plan a Trip
- Sell the Tour
- Keep it Hot
- Klondike Gold Rush
- Race Around the World
- Your Dream Vacation
- If I Ran the Toy Store
- Design A Chair
- Make a Bag
- Catch an Egg- Part 1
- Catch an Egg= Part 2
- Find the Treasure
- Introduction to Stimulations
- Design a Bridge

#### Unit 5: Innovation Challenges

- Start the Design
- How Many Rooms in Your House?
- · Yes, this is the design we want!
- Design the Kitchen
- Yeah, but can you build it?
- I want to be a Real Estate Agent?
- What Stones do these Walls Hold?
- Design A Stand-Alone Garage
- Adding Solar Panels to the Rood of Your Garage
- Design A Kitchen= Design A House

#### Unit 6: Criticizing Ideas

- How to Lose Through Criticism
- How to Win Through Criticism
- Criticism by Cliché and Cartoon
- How to Kill a Creative Idea

#### **Unit 7: Innovation Strategies**

- Four Ways to Invent
- Finding Problems: Where to Look and How to Evaluate
- Invent by Solving Problems
- Repurposing 1
- Repurposing 2
- Gather Information
- Make it Harder Wash the Floor with Your

#### **Unit 8: Design Thinking**

- Design Thinking- The Interview
- Design Thinking- Bag the Interview
- Establishing a Point of View
- Ideation
- Prototype
- Show Your Design Thinking-Based Model
- Design A New Accessory for a Bicycle
- Bike Accessory
- Redesign the Library

#### Unit 9: Intellectual Property

- Patents 1
- Patents 2
- · Take Your Invention and Shove it
- Winners and Losers
- Can You Keep A Secret

#### Unit 10: Innovation Success

- Success!
- What Lights Your Fire?