



MYSTERY BAG CHALLENGE

- Pair-up in teams of 3-4 people
- Pick up a blue mystery bag for each team
- Using only the contents inside the bag, build the tallest structure you can





7th Grade Career Tech Exploration





Plan for Today

- 7G-CTE – How & Why We Started
- Project Evolution & Impact
- Replication Advice
- Q & A



What is 7G-CTE?



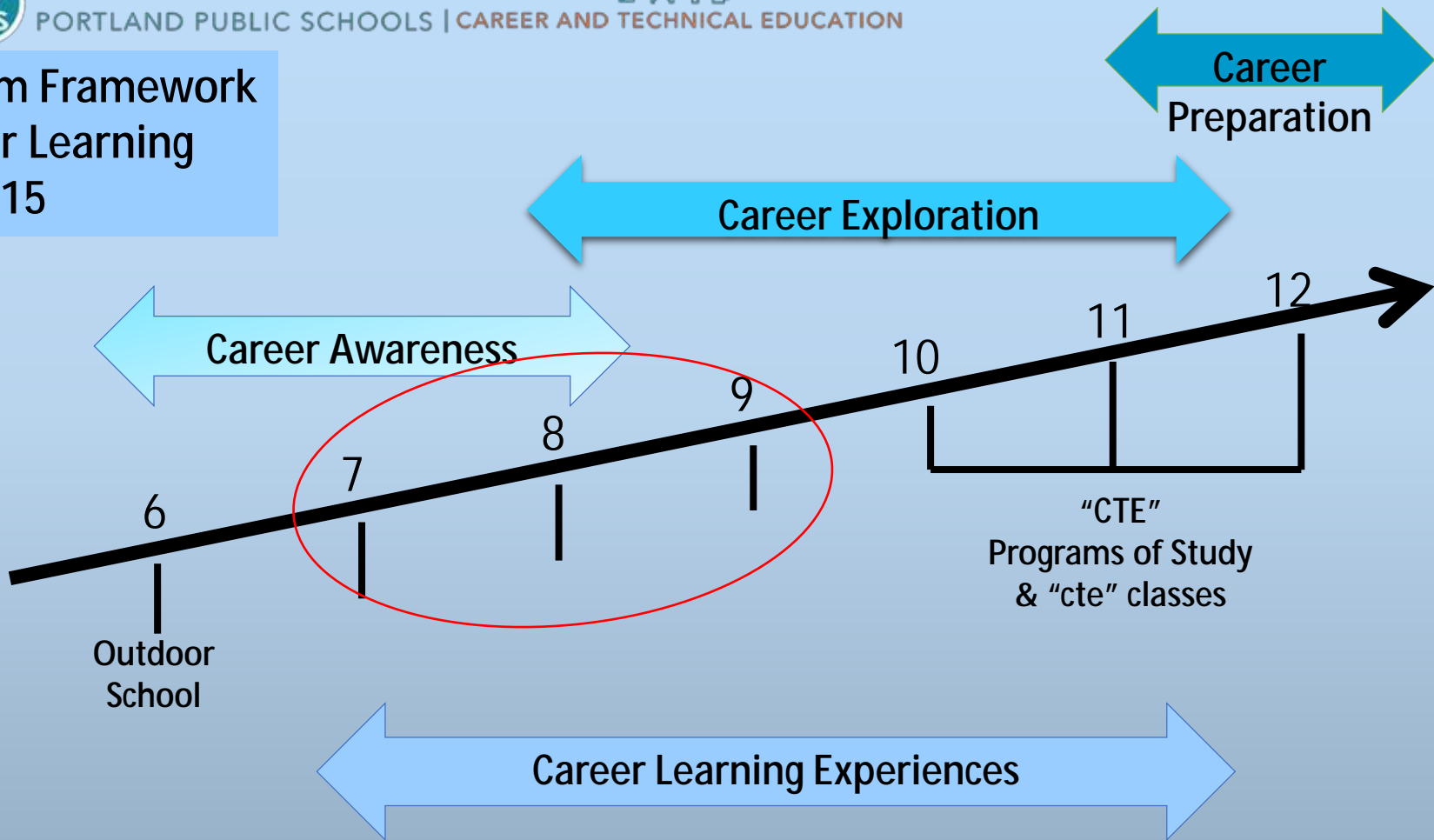
[Click here](#) if video does not play.



How and why we started



**System Framework
Career Learning
2014-15**





What could we do at the middle grade level for all 7th graders (3,500 students)?



Evolution to 7G-CTE

- School Board directive to provide hands-on career learning opportunities for all 7th graders (3,500 students)
- Get buy-in from senior leadership
 - Took board members and senior leadership to a day of “making” at ADX
- Explored provider opportunities
- Researched logistics (buses, sub costs, nutrition services, IT)
- Discussed alignment to district CTE programs and Oregon Career Learning Standards
- Developed a 1-year budget
- Board approval for funding



Making it Happen

- Hire a full-time program coordinator
- Develop an RFP to identify providers
- Identify space
- Contract with Project and Space providers
- Develop pre/post activity curriculum for schools
- Coordinate logistics (buses, lunches, subs, volunteers)
- Identify and purchase materials, supplies, computers etc.
- Develop marketing materials
- Collaborate with schools to identify optimal dates
- Schedule providers and spaces to align to school interests



Scheduling

smartsheet | Search | Upgrade | Help | Notifications | Account

Home | Department Tasks | Proposal Evaluation | 2017 General Funds | CTE Strategic Partnership System | 2017/18 - Provider Master Calendar - TGCTE

SCHOOLS	Main Contact	Volunteers & Guardianship - request sent	Feeb. Form Sent	Buses Ordered	# 7th Graders	CONFIRMED Date of FGCTE	# Make Kits Required	Make Kit School Shipping Date	Make Kits Sent (Yellow check only)	Tues Oct 3	Wed Oct 4	Thurs Oct 5	Tues Oct 9	Wed Oct 11	Thurs Oct 12	Tues Oct 16	Wed Oct 17	Thurs Oct 18	Tues Oct 23	Wed Oct 24	Thurs Oct 25	Tues Oct 30	Wed Oct 31
ACCESS ACADEMY	Jeremy Johnson, Teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	55																		
ARLETA	Sean Johnson Willow Wei	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	42	Waiting for con																	
ASTOR (combining students with	Sarah Zabel, New princpt	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	47																		
BEATMONT	Matt Moule, teacher Elise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	194	Sent msg, oct.																	
BEVERLY CLEARVIEW/FERWOOD	Rick Short, Teacher John I	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	110	Jan. 9-11																	
BOISE ELIOT HUMBOLDT (CONF)	Paul Duhl, Teacher Kevin I	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	38																		
BRODGER (in 2016/17 David & Liz)	Missa Schachner, new P	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	38																		
CESAR CHAVEZ (combining stud	TJ Fuller, Principal Huck V	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	57	Sent msg, oct.								X	X	X							
CREATIVE SCIENCE	Melissa Plotzke, New Princ	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	85																		
CRESTON	Stephanie Blatman, teach	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																			
DA VINCI ARTS (DATES CONFIRM	Kevin Conroy, Jason Heg	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	153	Feb 27-28, Mar																	
FAUBION (buses cancelled Nov. 2	Jen McCalley, Pris Satrin	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	92																		
GEORGE	Laver Robertson, Prin Sh	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	85																		
GRAY	Ryan Hook, teacher Bath I	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	166																		
HARRISON PARK	John Walden, new Princip	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	65																		
HOSFORD (BUSES ORDERED)	smingo@pps.net, Stacey I	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	213	Oct. 3-5	115	09/12/17	<input checked="" type="checkbox"/>	The Riv	Hedron	24 Knot	X	X	X	X	X	X					
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IRVINGTON	Nathaniel Crozman, Teach	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	45	Sent Nat msg,																	
JACKSON (DATES CONFIRMED)	Kevin Crotchett, Principal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	208	Nov. 14-16	120	10/30/17	<input checked="" type="checkbox"/>														
JACKSON (DATES CONFIRMED)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>														
KING	Claudia Egan, secretary Jill	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17	Sent msg, Oct																	
LANE	Patrick Lind, Jeanette Carb	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	134																		
LAURELHURST (April 3-5 prefer	Teresa Seidel, AP Penny I	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																			
LEE	RaeAnn Suckow, Teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Sent Scott/Lee														X	X	X	
LENT	Janet Olsson, Teacher Re	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	60															X	X	X	
MARYSVILLE	Anna Sky, Teacher Lana F	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	42																		
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Sharing (54) | Alerts & Actions | Attachments | Comments | Update Requests | Forms | Publish | Activity Log



Making it Happen

- Pre/post activities curriculum
 - Mystery Bag Challenge
 - Reflection Scrapbook
- Teacher packet
- Evaluation forms/sites for students, teachers, providers
- Safety protocols
- Strategies for working with various student populations
- Materials to introduce CTE programs at cluster high schools & Benson Tech
- Additional exploration options



7G-CTE Activities



Mystery Bag Challenge

Teams of 2-3 students build and test a structure using everyday common materials with a goal of reimagining the materials into new purposes

Contents of each bag:

- 30 – 3x5 index cards
- 10 small paperclips
- 5 large paperclips
- 2 medium binder clips
- 3 small binder clips
- 1 sheet neon ½" dot





Hedron Makerspace at Daimler Trucks North America

Students learned how to design, weld and grind a metal lamp to take home

“We never get the chance to use power tools and it makes me feel powerful”

7th grade female student





Hedron Makerspace





ImpactNW

Students learned how to use a vinyl cutter, 3D-printer, and laser printers to design name tags, logos, and headphone holders





ImpactNW





NW Film Center

Students have a choice of making a live action or stop motion animation video





Oregon Museum of Science & Industry

Students made a Rube Goldberg machine in a museum display case using hand and power tool, soldering irons, glue guns and LED lights





OMSI





The ReBuilding Center

Students design and build a three-string guitar using scroll saws, band saws, drill presses and nail guns

“I like creating things, it makes me feel powerful”
7th grade student





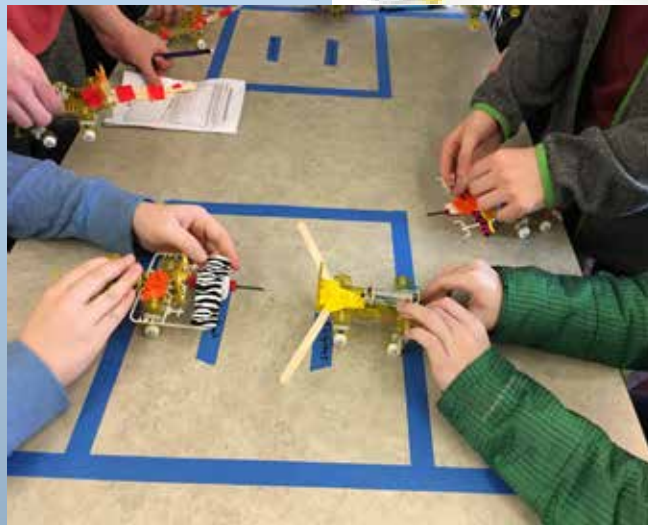
The ReBuilding Center





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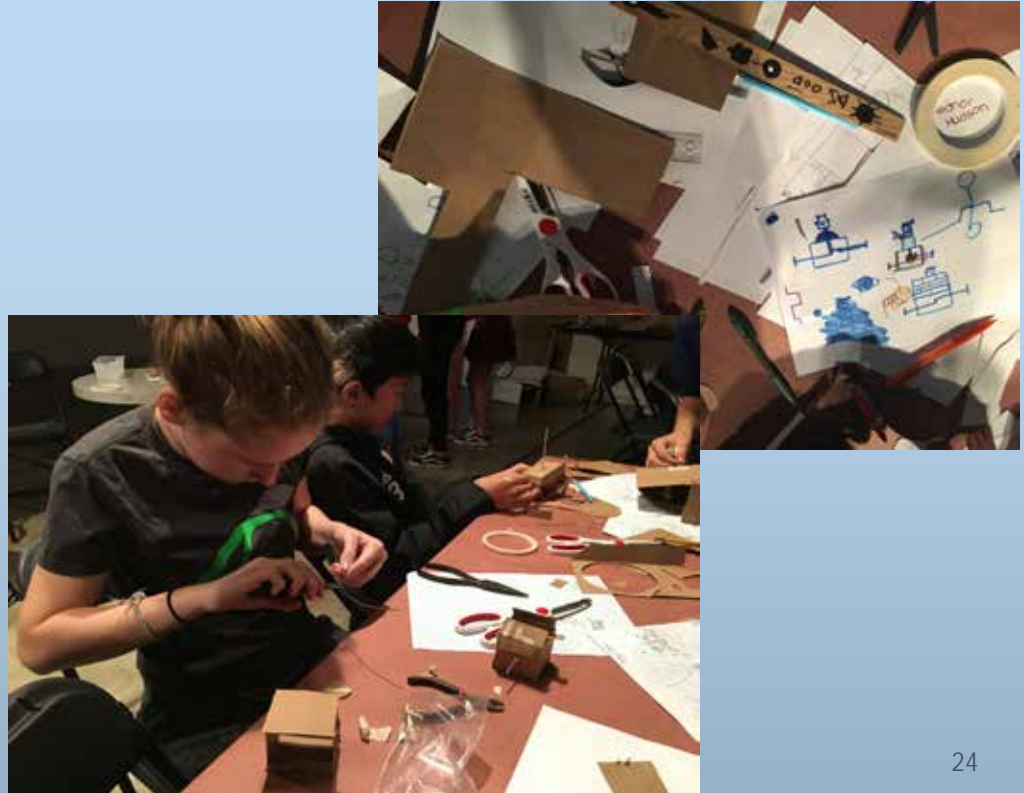
Students each build a Tamiya tiger robot and take on engineering design challenges based on Next Generation Science Standards





Young Audiences

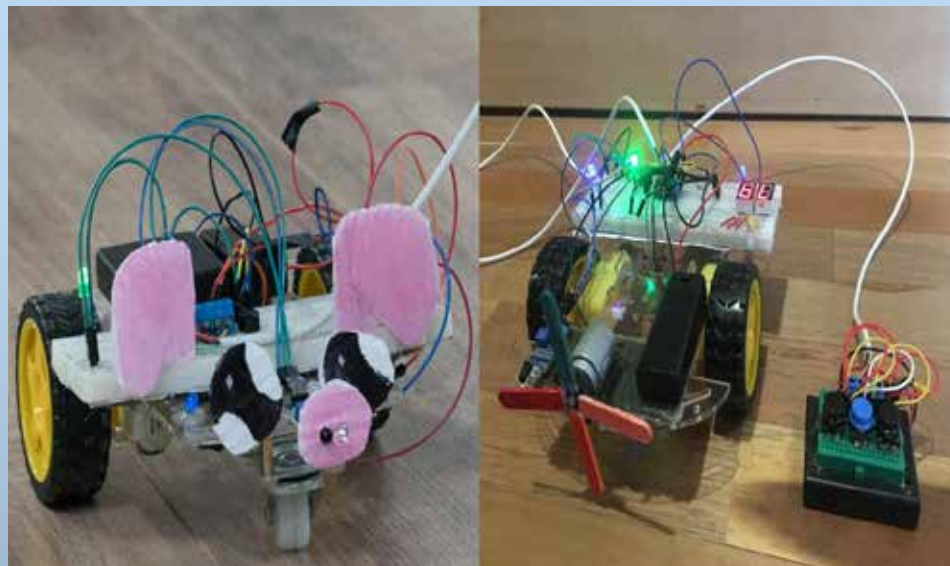
Students explore mechanical engineering and woodworking through designing and building an “automaton” – a mechanical wooden sculpture that suggests a story through motion





To Every Kid – Rescue Bot

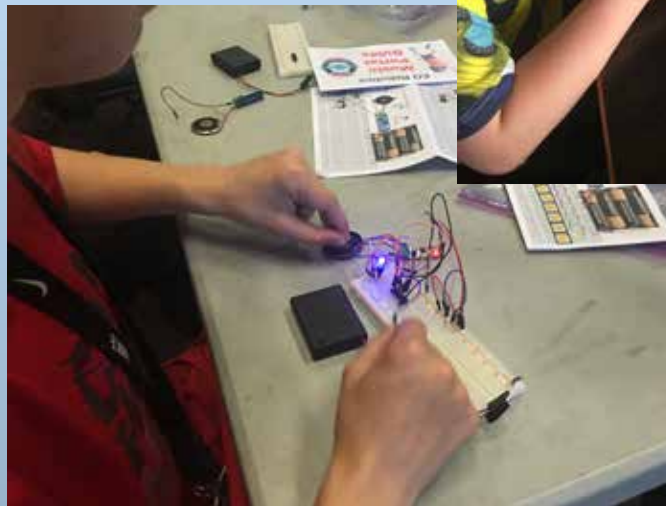
Students build and customize their own wired remote controlled robot. They test their skill in either an obstacle course or enter the ring and battle with others





To Every Kid – Audio Architect

Students build their own music making machine. They can use their body to make different sounds and experiment with electronics to change the sound the machine makes





Pixel Arts

Students use Scratch, Pixlr, and Twine and each work on a PPS Chromebook to create a video game, and incorporate design and sound.





After 7G-CTE

Introduce High School
CTE Programs





After 7G-CTE...

Student thank-you
notes





Lessons Learned

- Mix of low – high tech providers
- Continuous Improvement – driven by teacher and student feedback
- Consultative approach to supporting providers
- A variety of rental spaces can work!
- Majority of students express a preference for a provider they'd like to work with – this results in higher levels of engagement
- High-impact corporate partners – Daimler Trucks North America
- Pre- and Post-Activities aligned to Career Related Learning Standards (communication, teamwork, problem solving, and personal management)



Lessons Learned

- Students want to take home what they've made
- Providers who understand student-driven hands-on learning can be hard to find
- Providers have a variety of background and experiences
 - Debrief and collaborate for continuous improvement
- Ensure students have the opportunity to develop design thinking skills, follow their curiosity and engage in self-directed problem solving

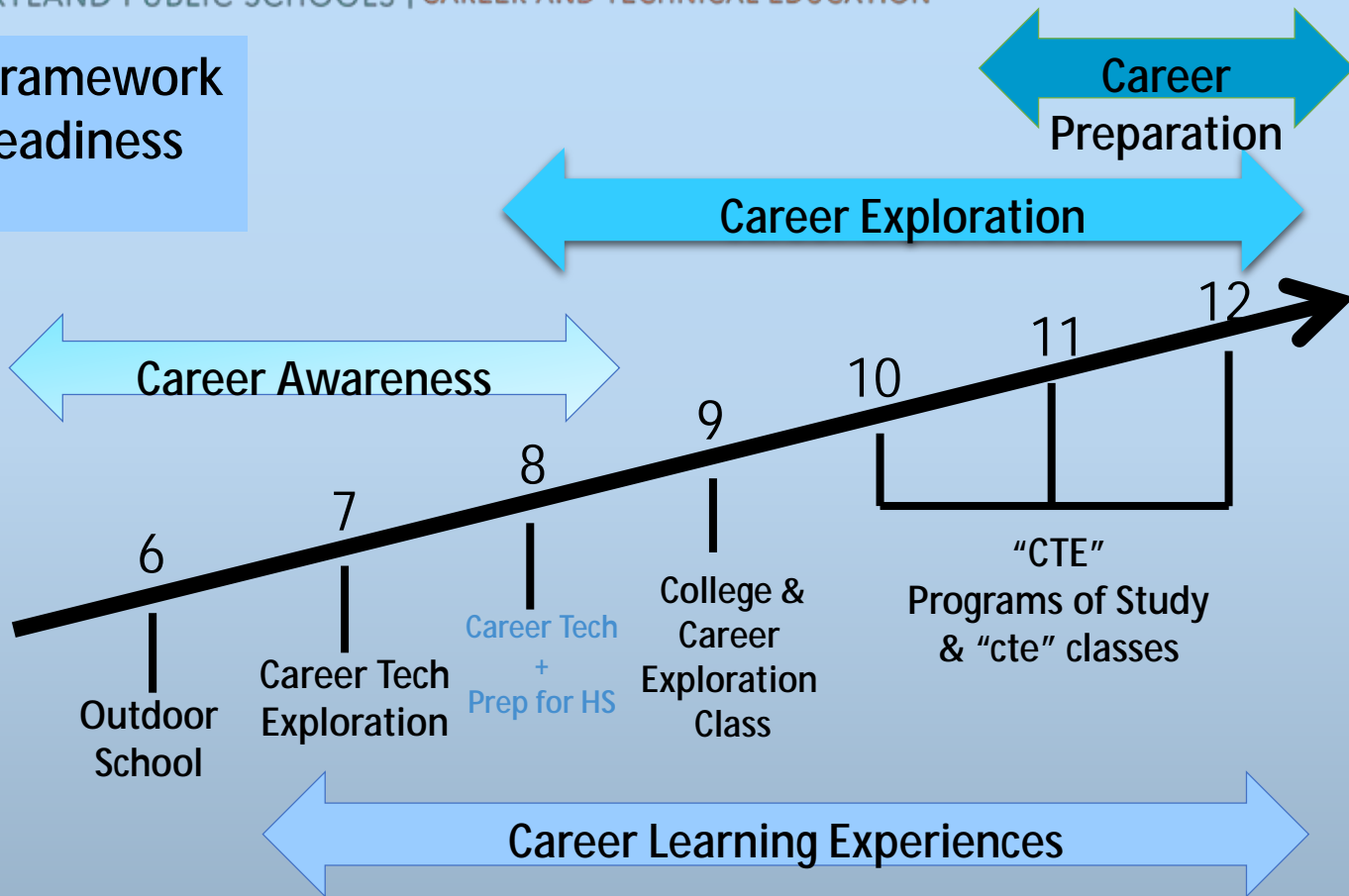


Costs to run 7G-CTE – Approximately \$300K

- Contract with
 - 7G-CTE Providers
 - Spaces
- Substitute teachers
- Extended hours for teacher planning
- Transportation – school buses
- Lunches (as needed)
- 2 Chromebook Carts
- Mystery Bag Challenge parts
- Program Coordination



System Framework Career Readiness





Q & A



For More Information:

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