

CURRICULUM

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Thomas Jefferson High School

Curriculum Strand: Measurement

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure.	<ul style="list-style-type: none"> Demonstrate an understanding of the customary scale to the 1/16" 	<ul style="list-style-type: none"> Direct Instruction Q/A Demonstrations Note Taking 	<ul style="list-style-type: none"> Examples Worksheets 	<ul style="list-style-type: none"> Teacher Observation Tests 	<ul style="list-style-type: none"> Extended Time Tutoring Technology Adapted Lessons Access to Learning Support Review and Re-teach Peer Interaction Group Instruction 	<ul style="list-style-type: none"> Additional Work Measure to the 1/64" Peer Instruction

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Curriculum Strand: Multi-view Sketching

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12.B Apply concepts of models as a method to predict and understand science and technology 3.1.12.D Analyze scale as a way of relating concepts and ideas to one another by some measure	<ul style="list-style-type: none"> Interpret concepts and ideas by sketching Recognize and differentiate between the various views and projections of an object Construct, organize and predict views and projections of an object 	<ul style="list-style-type: none"> Direct Instruction Group Work Hands-on Work Demonstrations Note Taking 	<ul style="list-style-type: none"> Examples Worksheets 	<ul style="list-style-type: none"> Teacher Observation Problem Solving In-Class Work Write-ups Journal Check Projects Critical Thinking Q/A 	<ul style="list-style-type: none"> Extended Time Tutoring Technology Adapted Lessons Access to Learning Support Review and Re-teach Peer Interaction Group Instruction 	<ul style="list-style-type: none"> More In-depth Projects Peer Assistance Independent Research Project

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Curriculum Strand: Decimal Conversions

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure.	<ul style="list-style-type: none"> Memorize and apply decimal conversions to the 1/16" 	<ul style="list-style-type: none"> Direct Instruction Demonstrations Note Taking 	<ul style="list-style-type: none"> Examples Worksheets 	<ul style="list-style-type: none"> Teacher Observation Tests Quiz Projects Q/A In-Class Work 	<ul style="list-style-type: none"> Extended Time Tutoring Technology Adapted Lessons Access to Learning Support Review and Re-teach Peer Interaction Group Instruction 	<ul style="list-style-type: none"> Additional Work Calculate to the 1/64" Peer Instruction

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Curriculum Strand: AutoCAD Commands/Settings

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure 3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding 3.7.10.C Apply basic computer operations and concepts 3.7.10.D Utilize computer software to solve specific problems 3.7.10.E Apply basic computer communications systems	<ul style="list-style-type: none"> • Demonstrate the use of various AutoCAD tools, commands and settings 	<ul style="list-style-type: none"> • Direct Instruction • Class Discussions • Demonstrations • Note Taking • Cooperative Learning 	<ul style="list-style-type: none"> • Examples • Computer • AutoCAD Software • Lanschool Software 	<ul style="list-style-type: none"> • Teacher Observation • Quiz • Problem Solving • In-Class Work • Critical Thinking • Peer Evaluation • Q/A 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • Additional Work • Measure to the 1/64" • Peer Instruction • Independent Research Project

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Curriculum Strand: Coordinate Systems

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure 3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding 3.7.10.C Apply basic computer operations and concepts 3.7.10.D Utilize computer software to solve specific problems 3.7.10.E Apply basic computer communications systems	<ul style="list-style-type: none"> • Apply the polar, relative and absolute coordinate systems to convey ideas 	<ul style="list-style-type: none"> • Direct Instruction • Demonstrations • Cooperative Learning • Class Discussions • Note Taking 	<ul style="list-style-type: none"> • Examples • Lanschool Software • Computer • AutoCAD Software 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Write-ups • Portfolio Check • Projects • Critical Thinking • Q/A • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • More In-depth Projects • Peer Assistance • Additional Projects

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Curriculum Strand: Dimensioning

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure 3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding 3.7.10.C Apply basic computer operations and concepts 3.7.10.D Utilize computer software to solve specific problems 3.7.10.E Apply basic computer communications systems	<ul style="list-style-type: none"> Recall and employ dimensioning rules and procedures according to ANSI standards 	<ul style="list-style-type: none"> Direct Instruction Demonstrations Cooperative Learning Class Discussions Note Taking 	<ul style="list-style-type: none"> Examples Lanschool Software Computer AutoCAD Software 	<ul style="list-style-type: none"> Teacher Observation Tests Quizzes Problem Solving In-Class Work Write-ups Portfolio Check Projects Critical Thinking Q/A Rubric Peer Evaluation 	<ul style="list-style-type: none"> Extended Time Tutoring Technology Adapted Lessons Access to Learning Support Review and Re-teach Peer Interaction Group Instruction 	<ul style="list-style-type: none"> More In-depth Projects Peer Assistance Additional Projects

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Curriculum Strand: Orthographic Drawing

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure 3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding 3.7.10.C Apply basic computer operations and concepts 3.7.10.D Utilize computer software to solve specific problems 3.7.10.E Apply basic computer communications	<ul style="list-style-type: none"> • Recall and apply decimal conversions • Recall and apply select coordinate systems • Recognize and draw orthographic projections and models using AutoCAD software 	<ul style="list-style-type: none"> • Direct Instruction • Demonstrations • Cooperative Learning • Class Discussions • Note Taking 	<ul style="list-style-type: none"> • Examples • Lanschool Software • Computer • AutoCAD Software 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Write-ups • Portfolio Check • Projects • Critical Thinking • Q/A • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • More In-depth Projects • Peer Assistance • Additional Projects

systems

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Curriculum Strand: Cross Section/Slice

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP

<p>3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure</p> <p>3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding</p> <p>3.7.10.C Apply basic computer operations and concepts</p> <p>3.7.10.D Utilize computer software to solve specific problems</p> <p>3.7.10.E Apply basic computer communications systems</p>	<ul style="list-style-type: none"> Recall and apply decimal conversions Recall and apply select coordinate systems Recognize and draw orthographic projections and models using AutoCAD software 	<ul style="list-style-type: none"> Direct Instruction Demonstrations Cooperative Learning Class Discussions Note Taking 	<ul style="list-style-type: none"> Examples Lanschool Software Computer AutoCAD Software 	<ul style="list-style-type: none"> Teacher Observation Tests Quizzes Problem Solving In-Class Work Write-ups Portfolio Check Projects Critical Thinking Q/A Rubric Peer Evaluation 	<ul style="list-style-type: none"> Extended Time Tutoring Technology Adapted Lessons Access to Learning Support Review and Re-teach Peer Interaction Group Instruction 	<ul style="list-style-type: none"> More In-depth Projects Peer Assistance Additional Projects
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CURRICULUM

Computer Aided Drafting

Thomas Jefferson High School

Curriculum Strand: Auxiliary Drawing

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP

<p>3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure</p> <p>3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding</p> <p>3.7.10.C Apply basic computer operations and concepts</p> <p>3.7.10.D Utilize computer software to solve specific problems</p> <p>3.7.10.E Apply basic computer communications systems</p>	<ul style="list-style-type: none"> • Recall and apply decimal conversions • Recall and apply select coordinate systems • Recognize and draw orthographic projections and models using AutoCAD software 	<ul style="list-style-type: none"> • Direct Instruction • Demonstrations • Cooperative Learning • Class Discussions • Note Taking 	<ul style="list-style-type: none"> • Examples • Lanschool Software • Computer • AutoCAD Software 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Write-ups • Portfolio Check • Projects • Critical Thinking • Q/A • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • More In-depth Projects • Peer Assistance • Additional Projects
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CURRICULUM

Computer Aided Drafting
Thomas Jefferson High School

Curriculum Strand: Oblique Drawings

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure 3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding 3.7.10.C Apply basic computer operations and concepts 3.7.10.D Utilize computer software to solve specific problems 3.7.10.E Apply basic computer communications systems	<ul style="list-style-type: none"> • Recall and apply decimal conversions • Recall and apply select coordinate systems • Recognize and draw orthographic projections and models using AutoCAD software 	<ul style="list-style-type: none"> • Direct Instruction • Demonstrations • Cooperative Learning • Class Discussions • Note Taking 	<ul style="list-style-type: none"> • Examples • Lanschool Software • Computer • AutoCAD Software 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Write-ups • Portfolio Check • Projects • Critical Thinking • Q/A • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • More In-depth Projects • Peer Assistance • Additional Projects

CURRICULUM

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Curriculum Strand: Isometric Drawings

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure 3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding 3.7.10.C Apply basic computer operations and concepts 3.7.10.D Utilize computer software to solve specific problems 3.7.10.E Apply basic computer communications systems	<ul style="list-style-type: none"> • Recall and apply decimal conversions • Recall and apply select coordinate systems • Recognize and draw orthographic projections and models using AutoCAD software 	<ul style="list-style-type: none"> • Direct Instruction • Demonstrations • Cooperative Learning • Class Discussions • Note Taking 	<ul style="list-style-type: none"> • Examples • Lanschool Software • Computer • AutoCAD Software 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Write-ups • Portfolio Check • Projects • Critical Thinking • Q/A • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • More In-depth Projects • Peer Assistance • Additional Projects

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Curriculum Strand: Solid Modeling

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure 3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding 3.7.10.C Apply basic computer operations and concepts 3.7.10.D Utilize computer software to solve specific problems 3.7.10.E Apply basic computer communications systems	<ul style="list-style-type: none"> • Recall and apply decimal conversions • Recall and apply select coordinate systems • Recognize and draw orthographic projections and models using AutoCAD software • Recall and relate the steps needed to draw solid models • Apply and distinguish between various solid modeling commands, procedures and projections 	<ul style="list-style-type: none"> • Direct Instruction • Demonstrations • Cooperative Learning • Class Discussions • Note Taking 	<ul style="list-style-type: none"> • Examples • Lanschool Software • Computer • AutoCAD Software 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Write-ups • Portfolio Check • Projects • Critical Thinking • Q/A • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • More In-depth Projects • Peer Assistance • Additional Projects

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Curriculum Strand: Advanced Functions

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure 3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding 3.7.10.C Apply basic computer operations and concepts 3.7.10.D Utilize computer software to solve specific problems 3.7.10.E Apply basic computer communications systems	<ul style="list-style-type: none"> • Recall and apply decimal conversions • Recall and apply select coordinate systems • Recognize and draw orthographic projections and models using AutoCAD software • Apply ANSI standards to draw real-life gears, cam, threads and bolts • Arrange multi-view drawings and solid models into layout views 	<ul style="list-style-type: none"> • Direct Instruction • Demonstrations • Cooperative Learning • Class Discussions • Note Taking 	<ul style="list-style-type: none"> • Examples • Worksheets • Lanschool Software • Computer • AutoCAD Software • Textbooks 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Write-ups • Portfolio Check • Projects • Critical Thinking • Q/A • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • More In-depth Projects • Peer Assistance • Additional Projects • Independent Research Projects • Field Trips

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Curriculum Strand: Independent Project

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure 3.6.12.B Analyze knowledge of information technologies of process encoding, transmitting, receiving, storing and decoding 3.7.10.C Apply basic computer operations and concepts 3.7.10.D Utilize computer software to solve specific problems 3.7.10.E Apply basic computer communications systems	<ul style="list-style-type: none"> Recall and apply decimal conversions Recall and apply select coordinate systems Recognize and draw orthographic projections and models using AutoCAD software Recall and apply AutoCAD functions to draw a complex real world object in multiple projections Measure and collect a set of dimensions using various measuring device 	<ul style="list-style-type: none"> Direct Instruction Demonstrations Cooperative Learning Class Discussions Note Taking 	<ul style="list-style-type: none"> Examples Lanschool Software Computer AutoCAD Software 	<ul style="list-style-type: none"> Teacher Observation Tests Quizzes Problem Solving In-Class Work Write-ups Portfolio Check Projects Critical Thinking Q/A Rubric Peer Evaluation 	<ul style="list-style-type: none"> Extended Time Tutoring Technology Adapted Lessons Access to Learning Support Review and Re-teach Peer Interaction Group Instruction 	<ul style="list-style-type: none"> More In-depth Projects Peer Assistance Additional Projects