

Path2Stats Instructional Cycle

Path2Stats Instructional Cycle	Pedagogy	Assessment/Feedback	Purpose
Introduction to Unit and Unit Questions	Small group and class discussion	Homework: Interpret statistical or mathematical information from a newspaper article or website	<ul style="list-style-type: none"> • Motivation • Contextualization in a “real life” situation • Build pre-knowledge • Connect to and build on personal reasoning
Preliminary investigation of a data set relevant to the Unit Questions	<p>Group work, poster presentations, group reflection and revision</p> <p>Individual work with Tinkerplots on Unit Questions, speed-dating (pair-share), class discussion</p>	<p>Group work/Poster presentations: peer and instructor feedback</p> <p>Speed-dating (pair-share, revise): peer feedback; individual reflection and revision</p>	<ul style="list-style-type: none"> • Practice listening and responding • Gain respect for and learn from peers • Take risks • Move away from “show me” and toward “what makes sense to me” • Build pre-knowledge • Connect to and build on personal reasoning
Structured development of statistical tools	Group work, mini-lectures	<p>Group work: Peer and instructor feedback;</p> <p>Homework problems: feedback from instructor, (feedback routine by peer, group, or self)</p> <p>Homework quizzes: multiple-choice quizzes with solutions and explanations</p>	<ul style="list-style-type: none"> • Build pre-knowledge/schema to prepare for direct instruction • Direct instruction on key concepts • Directed practice
Application of statistical tools to data analysis relevant to Unit Questions	Individual work with Tinkerplots on Unit Questions, speed-dating (pair-share), class discussion	<p>Drafts of parts of larger paper or presentations: individualized peer and instructor feedback</p> <p>Homework:</p>	<ul style="list-style-type: none"> • Practice listening and responding • Gain respect for and learn from peers • Take risks • Move away from “show me” and toward “what makes sense to me” • Apply concepts to an open-ended task • Build statistical literacy
Culminating Task: Paper, exam, or presentation	Some redo opportunities	Self and peer feedback prior to due date. Optional feedback from instructor prior to due date. Rubric evaluation.	<ul style="list-style-type: none"> • Synthesis • Build persistence and pride in work

