gROW Tulsa Competency Rubric

Core Competencies	Beginning	Emerging	Mastering	Advanced
Teamwork and Collaboration I can operate as an effective member of a team in a collaborative environment.	• I can comply with the rules of my team, organization or club. • I can listen to and follow instructions.	• I can participate in the creation and establishment of the values of my RowingSTEM club or organization. • I actively look for ways in which I can contribute to the effective running of my team/club. Such as setting up/cleaning machines for other athletes or other equipment to ensure the efficiency of practice time.	• I can provide constructive and objective feedback to my coaches and teammates. • I can model and behave with a gROWth mindset and be patient with myself and others when challenges arise.	• I can demonstrate/choose actions and communication abilities that support others toward their growth and development as rowers and people. • I can adjust my approach to supporting others depending on their personality, strengths and development areas. • I model the competencies of effective teamwork and put the needs of the team ahead of my own personal agenda.
Experimental Design I can design, implement and subsequently analyze experiments to investigate the relationship between two or more rowing data variables.	• I can define and articulate what a hypothesis is.	• I can design a simple experiment to test a hypothesis. • I can articulate why it is important to control other/external variables while conducting a scientific experiment. • I can articulate the various steps in the scientific method and apply them to experiments that I design for use in a rowing environment.	• I can write a compile a basic report to communicate my findings. • I can write a conclusion to my experimental findings using argument constructs such as Claim, Evidence and Reasoning.	• I can design an experiment that involves numerous rowers to test a hypothesis over an extended period of time. • I can write a compile a detailed report to communicate my findings using an argument-based approach with a claim, evidence, and reasoning structure.

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Data Collection and Analysis I can collect data from the Concept2 PM, process or graph it, and analyze it appropriately	• I can write down data in a table at specific points during a rowing session. OR I can use RowingSTEM (or other appropriate apps) to collect data from the PM5 monitor. • I can include appropriate units when recording data in a data table.	• I can use the graphing functionality in RowingSTEM to create scatterplot or line graphs using data from my rowing performance OR I can use paper and pencil/pen to construct a graph to visualize my rowing data. • I can export data from the RowingSTEM app for further analysis or processing. • I can define the difference between accuracy and precision.	• I can use a spreadsheet using comma-separated values data collected from a rowing machine to create graphs that are correctly scaled, labeled (with units). • I can calculate the average speed that I was rowing at using a the slope of a time/distance graph. • I can define and articulate the meaning of acceleration. • I can plot multiple data sets on the same pair of axes and provide a legend to differentiate each dataset.	• I can monitor my fitness over a period of time and use graphs to measure changes in my rowing performance. • I can analyze and define the difference in terms of directly proportional, inversely proportional, unrelated, and exponential when comparing two rowing data variables.

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Concept2 Machine Operation, Care and Maintenance I can use, care for and maintain the Concept2 rowing machine.	• I can assemble and disassemble the machine. • I can set the foot stretcher at an appropriate height for myself. • I can place the handle back safely at the end of my rowing session.	• I can clean the machine after use (handle, slide, seat, etc..) and store the machine safely in two parts. • I can use the PM5 monitor to set up a "just row" training session. • I can connect the RowingSTEM app to the PM5 monitor via Bluetooth (or other appropriate apps)	• I can program single distance or time-based rows on the PM5 monitor. • I can retrieve the results of my training using the memory functions on the PM5 monitor • I can wear a heart rate monitor and successfully pair the monitor with the PM5 monitor. • I can articulate what the drag factor is, use the monitor to discover what drag factor the, and adjust the drag factor to be appropriate for my gender, and body weight.	• I can program interval workouts on the PM5 monitor • I can access and articulate what the force curve is, what a good force curve looks like, and make adjustments to my rowing technique to improve force application.