



TULSA YOUTH ROWING ASSOCIATION

**gROW**TULSA  
Pulling Together • Developing Understanding • Creating Opportunities



## STEM / Rowing

### Psychology

Growth Mindset

Motivation

Goal Setting

Resilience

Character Development

Teamwork and Collaboration

### Physiology

Nutrition

Exercise Science

Anatomy

# Executive Summary

The Tulsa Youth Rowing Association (TYRA) offers competitive and recreational rowing training for 7th through 12th grade student athletes. Our mission is to provide an environment to teach rowing while promoting sportsmanship, confidence, leadership and overall health, and providing academic support and future opportunities for college success. Many athletes have benefited through college placement and even scholarships.

Not all students have been able to take advantage of such pathways to success, especially in lower income demographics where difficult home circumstances, low academic expectations and/or reduced activity may stand in the way. The gROW Tulsa outreach project will provide comprehensive access to physical activity, academic support and teamwork to the communities served by our rowing club and increased activity along the Arkansas River corridor.

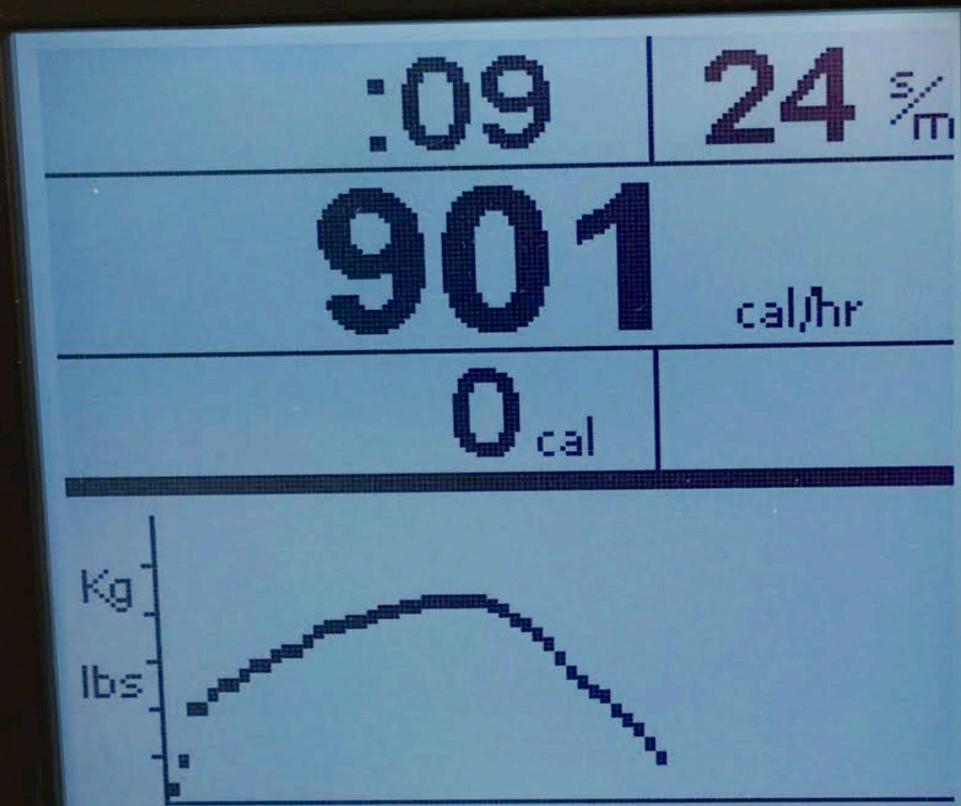
The initial phase of the program will serve local schools by providing them with access to Concept2 rowing machines for ten weeks. The machines will be used in schools to expose hundreds of 6th through 8th grade students to rowing and will be accompanied by a curriculum for educators to use to foster learning in science and mathematics (STEM). This program will also allow athletes in the Tulsa Youth Rowing Association the chance to coach and mentor middle school students and will thus provide those students with experiential learning and leadership development. gROW coaches will educate physical educators in the school system to help build expertise. Long-term, the students involved in the program could progress to on-the-water activities once they reach high school age and the river in Tulsa exists at a more reliable water level.

The second phase of the program seeks to accommodate a minimum of fifty student athletes per semester from lower-income families on the water or in a more central location, increasing to a hundred student athletes over a three-year period. Our program will partner with local nonprofits such as the YMCA and YWCA to increase exposure to students. A third phase will include providing access to rowing activities to the adaptive community, juvenile detention centers, veterans and first responders.

Our club has provided an important service to the youth of Tulsa over the past fifteen years. Our graduation rate has been close to 100% with many of our athletes progressing to top level universities and our first generation of rowers now actively contributing to their own communities. We believe that this project will introduce our rowing programs and service to an under-served youth population. As a result, we anticipate an increased opportunity for access to the sport of rowing, a rise in graduation rates, increased inclusion and diversity among our student-athletes, leadership development opportunities, higher levels of daily activity and improved quality of life for those that we serve.

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## Computer Science

Computer Science

Data Collection

Database Development

Visualization

Analysis

Coding

Web Programing

App Development

# A Proposal

For Tulsa youth, an education leading to college and a good career is the primary path to success. Even the most remarkable self-starters, however, must overcome significant obstacles if their parents lack the presence, time, ability or financial wherewithal to provide the nutrition, encouragement, transportation and homework help from which other, more fortunate kids benefit. It's even more difficult for those who lack a role model from which to learn values critical to learning.

Rowing can help. The sport not only teaches a healthy lifestyle and the values of perseverance, loyalty and teamwork, but it also can lead to many college opportunities. Athletes in our rowing program in Tulsa have graduated high school to continue their careers at schools such as Yale, Cornell, SMU, KU, OU, The University of Tulsa, Boston University, OCU, UCO, and Gonzaga to name but a few.

Many of these kids no doubt benefited from their fortunate circumstances. It's not a surprise to learn that rowing is an expensive sport. Just one eight-seat boat can cost as much as \$40,000. Rowing also requires other expenses such as insurance, coaching salaries, equipment upkeep and facility maintenance. As a result, the cost to be involved in a competitive rowing environment can be as much as \$3000 to \$5000 a year. This is all well and good for those families that can afford to send their kids to have an opportunity to row.

As the Arkansas River becomes a focal point of the community, rowing must play its part. We want to provide a rowing club that provides access to the sport of rowing for the many in our community. With the prospect of water in the river with the construction of a new dam in the near future it's time to think about how that investment can be built upon.

Following the lead of Row New York, a non profit rowing community that serves the city of New York, we feel that the time is right to lay the foundation for a selection of programs to serve Tulsa's students and their parents. Row New York provides access to competitive rowing for many different student athletes of various cultures and socioeconomic backgrounds, and this combination of competitive rowing and rigorous academics is also a good fit for Tulsa.

The program in New York is unique and special because not only are they developing students of all backgrounds and abilities, they are also providing tutoring to help with future college chances. For most kids, athletics by itself is not sufficient but combined with a strong testing score or GPA will open doors for young Tulsans.



## **Competitive Program**

A six day a week competitive program that features five days of training with one day of tutoring in the middle of the week. Tutoring could also be offered before and after practice if facilities could be coordinated either onsite or with local organizations.

## **Academic Programs**

General tutoring in english, math, science, writing. The program would also provide SAT and ACT prep during the summer and during the school year. Tutoring would occur either before or after practice. The program would also provide college counseling assistance so that student athletes have more support in the demanding college admissions process. This support would also include organized visits to different colleges and universities.

The goal of the academic support program would be to have a high school graduation rate coupled with a high level of scholarship and graduation with a college degree.

## **Learn To Row and Recreational Programs**

1. Programs for lower income populations that serve as recreational environments. These programs would teach the basics of rowing. They would also include a mentoring program and academic support for those involved. This could lead to competitive rowing.
2. A program that involves transporting rowing machines to middle and high schools to provide instruction on the rowing machine.
3. A program that involves transporting equipment to juvenile detention centers to provide team building and confidence building through the instruction of rowing.
4. A new program introduced by USRowing is Freedom Rows. This program provides support for local rowing clubs to provide the opportunity to row for veterans in recreational programs or for the chance to row at the paralympics.

## One Day Team Building Workshops

One day team building programs would be offered to help meet organizational goals. The one day team building would involve the following aspects:

1. Instruction on the rowing machine
2. Rowing in a rowing tank
3. Rowing on the water in an actual racing boat
4. Fun races at the conclusion of the day

## Community Service

Another aspect of the program would include several days of community service to help foster a sense of serving the community. These activities could include working with other nonprofit groups. Student athletes in the program can work as coaches and leaders to help provide rowing experiences for other disadvantaged groups. This could include foster children or those that would benefit from various adaptive programs (such as those with disabilities or visually impaired).

## Conclusion

Tulsa's children are its future, and the community has a profound responsibility to help them succeed. Tulsa rowing is "all in" to do our part by using rowing as a vehicle for the development of human potential. We also acknowledge that at this time there is limited access and want to work to improve that.

This is a bold proposal but we are actively looking for partners and supporters to share in our vision and become active participants.





## Science and Mathematics

### Mathematics

Geometry

Graphing

Statistics

Algebra

### Physics

Newton's Law of Motion

Fluid Dynamics

Force Production

Biomechanics

Kinesiology

Materials

### Environmental Chemistry

Erosion & Deposition

### Earth Science

Solubility

Conductivity

Flow Rates

pH

# The History of TYRA

Dr. Charles Oliphant first promoted the benefit of exercise through rowing in Tulsa in the early 1980's. After years on the Harvard crew, Dr. Oliphant wished to bring the sport home and make rowing available to participants of all means and ages. Tulsa Rowing Club was founded and, in 1989, began including high school students in their learn-to-row classes and encouraging them to train along with the adult members. These young athletes came to be known as Tulsa Rowing Club Juniors and a booster club was organized in 2004 to support TRCJ activities. In 1991, Charles and Arline Oliphant dedicated the Tulsa Rowing Club boathouse as their gift to the sport of rowing in Tulsa. Through several fundraisers, Tulsa Rowing Club purchased boats and equipment that allowed adult (masters) and junior members to participate in practice and regattas at a minimal cost. In 1996, the University of Tulsa established a women's rowing team and began sharing storage space at the TRC boathouse. In April 2007, the University of Tulsa moved to a new boathouse on the Verdigris River, the J. Bird Sr. Shell Nest.

Youth rowing in Tulsa has grown since 2002. 15 years ago the club served ten athletes and had one coach. The team practiced three days a week and owned no equipment. In 2007, due to increased growth and interest in youth rowing the club fundraised for and purchased \$75,000 of racing shells in order to support our athletes and coaches. In 2010, the club once again initiated a capital campaign to raise \$100,000 to purchase top of the line racing shells, rowing machines and a coaching launch.

Over the last fifteen years the club has served hundreds of student athletes. It owns \$250,000 of equipment, employs 6 coaches and manages over 40 athletes from fifteen different Tulsa area schools. The club has provided an environment to promote the sport of rowing and all of the opportunities that it provides. It has appeared at the Youth National Championship Regatta a total of seven times. Athletes have rowed at the prestigious Head of the Charles regatta in Boston. In 2013, the club was the first youth organization from Oklahoma to row at Henley Royal Regatta in England. That year, Tulsa Rowing Club Juniors divested from the Tulsa Rowing Club to form an independent youth rowing organization, renamed Tulsa Youth Rowing Association (TYRA) and became a charitable non-profit in 2014.

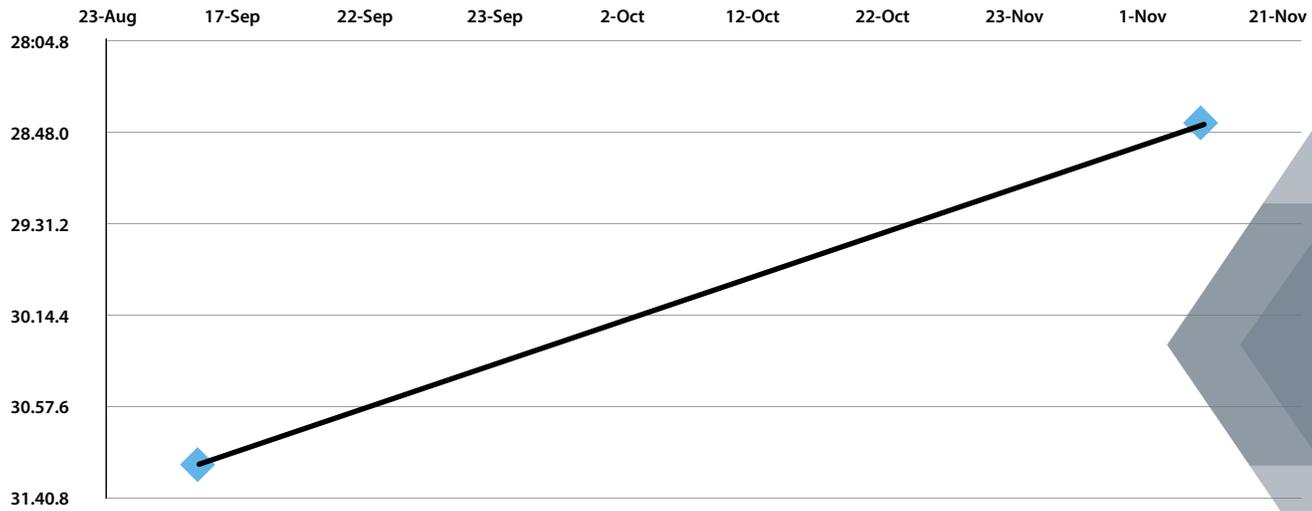
It is remarkable what the club has achieved with little resources and with the Arkansas River being as unreliable as it has been. The club has been recognized by the Mayor of Tulsa for the services that it provides the community. It is home to student athletes from 15 different middle and high schools in Green County and surrounding areas. Members of the club have graduated the program to row at many highly ranked universities.

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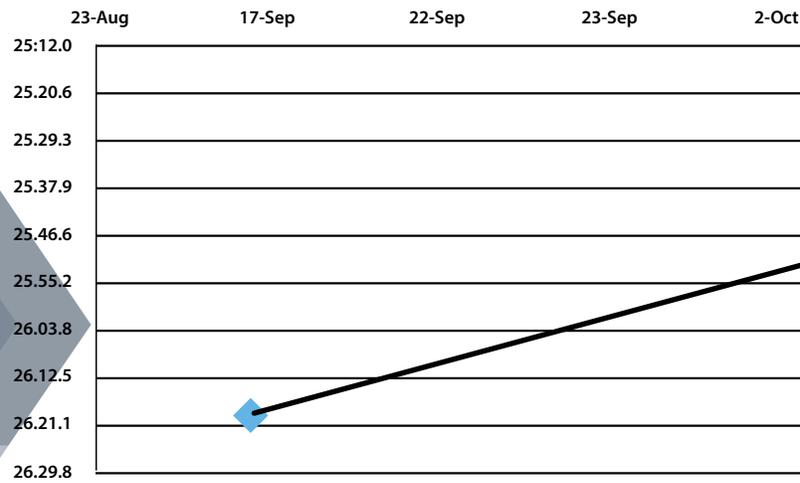
Yale · Cornell · Boston University · MIT · Washington University in St Louis · Gonzaga · University of Tulsa  
University of Oklahoma · SMU · Oklahoma City University · University of Central Oklahoma · Kansas University



## Improvement in 6km Time Novice Girls in a 10 week period



## 6km Performance Over 10 Week



In another data sample of 23 varsity athletes (at least one year of competitive rowing experience) performance gains were 4% over a ten week period. This represents a 1 minute and 1 second average improvement over a 26 minute rowing test.



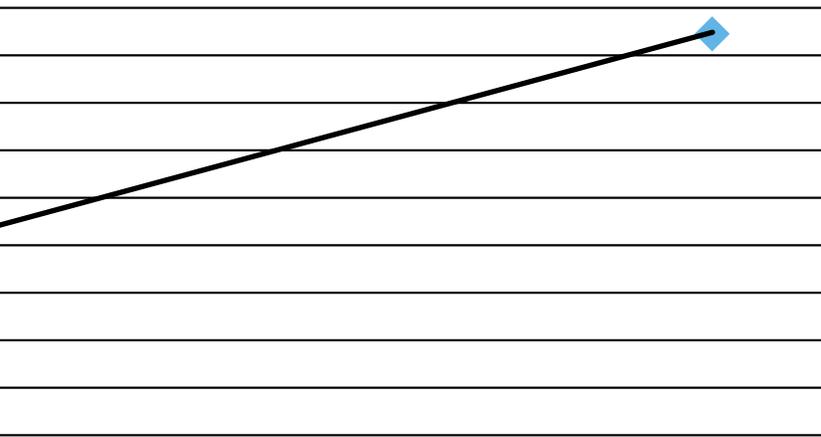
# Physiological Development

The benefits of rowing include physiological and psychological growth in young high school age student athletes. To provide some empirical data for physiological improvement we offer the following.

This data was taken from the novice girls (first year of rowing) in the fall of 2016. The athletes participated in a 6000m rowing test on August 30, 2016. After one fall season of the program the athletes had made an 8.3% improvement in their physiology. This represents a 2 minutes and 40 second average improvement over an average 31 minute rowing test.

## Fall Season (sample size 23 varsity athletes)

12-Oct      22-Oct      23-Nov      1-Nov      21-Nov



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## Budget for Pilot Program

Item	Quantity	Cost Per Unit	Total	Notes
Concept2 Rower	5	\$850	\$4250	See note below or ergs can be appropriated from existing machines that the club owns
iPhone / Android Connection Kit	10	\$10	\$100	Connect phones to erg monitor for science-based investigations
Used older model iPhone /Android Phone	10	\$120	\$1200	Cost for mobile phone data collection
Box Trailer	1	\$5000	\$5000	Trailer to store and transport rowing machine
Machine Upkeep		\$5000	\$5000	Spare parts, nuts, bolts, replacement monitors etc.
<b>Total:</b>			<b>\$11,550</b>	

Finally, one of the outcome goals of the program is to graduate the students involved in these indoor rowing programs to on-the-water programs and camps so that they can continue to benefit from their experiences at their schools.

# Pilot Program

The initial pilot of the gROW program will consist of two ten-week seasons. Each week middle school students will be invited to learn about the Concept2 rowing machine and other fitness related topics. The seasons will take place between September and November and March through May and will last ten weeks. Each week the students will receive two sessions of instruction for a total of twenty sessions.

## Program Logistics

Initially, a school or similar organization will be selected to act as the pilot program. The machines will be transported out to the school for the season. The rowing machines would be kept at that location for the duration of the program. TYRA will partner with TPS physical education staff to help with rowing knowledge and instructional techniques.

## Training For Physical Educators

While TYRA plans to provide coaches for this program, we also feel that in order to grow the sport of indoor rowing in schools it is necessary to provide an instructional framework for physical educators in Tulsa public schools and surrounding districts.

The physical education instructors involved in the course will be trained by TYRA staff in the use of the rowing machine. This training will take place over a period of one day from 9am to 5pm with a break for lunch and this training will occur prior to each course.

## The Training Will Cover

- Rowing fundamentals, correct technique and how to fix technical faults.
- Programming for training. Learn how to develop training methods and use the machine.
- Community building with the rower.
- Machine care and maintenance.

## Building Leadership and Community

In addition to the in-school physical education programs, members of the Tulsa Youth Rowing Association (athletes aged 8th grade to 12th grade) will be provided the opportunity to teach rowing technique to middle school students in this program. This provides the chance for expanded and experiential learning for Tulsa area high school students.

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## Operational Costs (2 Years)

Curriculum Development	1	\$1500	\$1500	Development of science-based lab curriculum
Coach	2	\$2400 per coach for ten weeks of coaching twice a week	\$19,200 (for one year of two sessions for coaches)	2 Years
US Rowing Waivers	400	\$9.95 each	\$4000	For insurance coverage through TYRA
Transportation Budget	1	\$1000	\$1000	Equipment transportation to schools for one year. This line item pays for gas transportation rental.
Misc	1	\$1600	\$1600	Certificates and accomplishment items. Also for food and drinks for closing gathering.
<b>Total:</b>			<b>\$27,300</b>	

For an 800-student middle school these costs come out to be around \$25 per student per year.

## Curriculum

TYRA will provide an instructional framework for each week of instruction. This framework will incorporate various areas including:

- 1) Rowing technique: motor patterns and skill acquisition.
- 2) The benefits of regular physical activity.
- 3) Improved cardiovascular and strength outcomes.
- 4) Team work, self-esteem and confidence building.
- 5) Life time involvement in the sport of rowing.

Finally, one of the outcome goals of the program is to graduate the students involved in these indoor rowing programs to on-the-water programs and camps so that they can continue to benefit from their experiences at their schools.

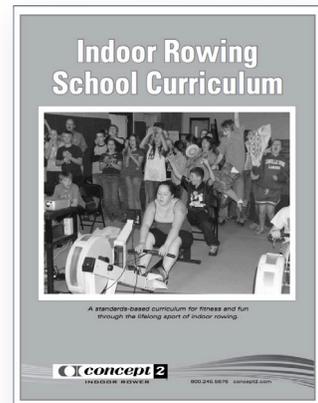
## Established Curriculum Framework

Concept2 (the company that makes that rower) has a published physical education curriculum. The curriculum can be downloaded at this link: [http://www.concept2cts.com/files/pdf/us/cts/CTS\\_Schools\\_Curriculum.pdf](http://www.concept2cts.com/files/pdf/us/cts/CTS_Schools_Curriculum.pdf) It is aligned with the National Association for Sport and Physical Education (NASPE) Standards for Physical Education.

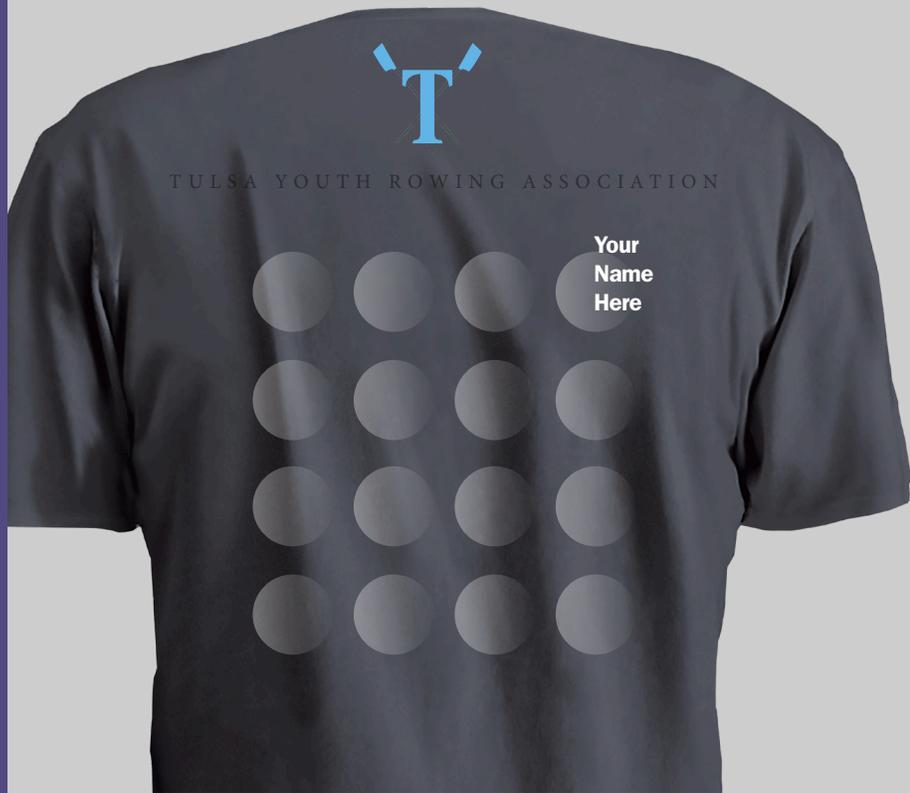
## Outcomes

The following is a list of ways in which we will measure the outcomes of the pilot program.

- Students will be evaluated using rowing technique rubrics to measure improved biomechanics.
- Students will row 500m on the first and last day of the session to evaluate physiological progress.
- Students will complete a self-concept inventory on the first and last days.
- The club will work hard to create future opportunities for those in the indoor rowing curriculum to progress to on the water programs if the pilot program is successful.



Our program needs your financial support in order to be successful and have an impact on those that we serve. We appreciate donations of any size. TYRA offers the following naming opportunities for our indoor rowing pilot program. We appreciate your consideration and look forward partnering with you on this exciting project.



**Team Clothing Sponsor:  
Donations of \$1000 and above**



# Naming Opportunities

Rowing Machines: Donations of \$1000



Transportation For Rowing Machines  
Side Trailer: Donations of \$5000



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## **We commit to:**

- Teach proper rowing technique, as well as the ability to trust and support others.
- Work and develop as a team to promote dedication, sportsmanship, confidence and commitment into every practice and race, and become a center of excellence where athletes can complement their home and school life with these and other character-building activities.
- Participate in local, regional and national level regattas to establish TYRA as a nationally competitive program.
- Challenge athletes in physical and academic training to achieve maximum development and performance.
- Provide programming to put athletes in good standing for rowing scholarships at colleges and Universities.
- Support our athletes with academic and college counseling support to ensure high rates of high school and college graduation rates.

While the primary goal of this program is to provide athletic instruction, the Tulsa Youth Rowing Association is committed to creating a safe and positive environment for athletes' physical, emotional, academic and social development and to ensuring that it promotes an environment free of misconduct.

# TYRA at a Glance

## Vision

Our vision is to provide the community access to the sport of rowing. We are committed to being an innovative leader and representative for the community of Tulsa.

## Identity

Tulsa Youth Rowing Association Is A Rowing Community

- We teach on the water rowing technique.
- Our athletes become stronger and fitter both physically and mentally.
- Our athletes graduate high school and continue to contribute to college and university communities well beyond their involvement with the club.

## More than a Rowing Community

- Our gROW Tulsa outreach programs will make us an education organization.

We will continue to make great strides as an athletic organization while maintaining our commitment to educate and support the Tulsa surrounding communities. We aim to raise the educational and physical well-being of all involved in our programs.

## An Asset To The Community

- We have coached and educated nearly 800 athletes in the past fifteen years.

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