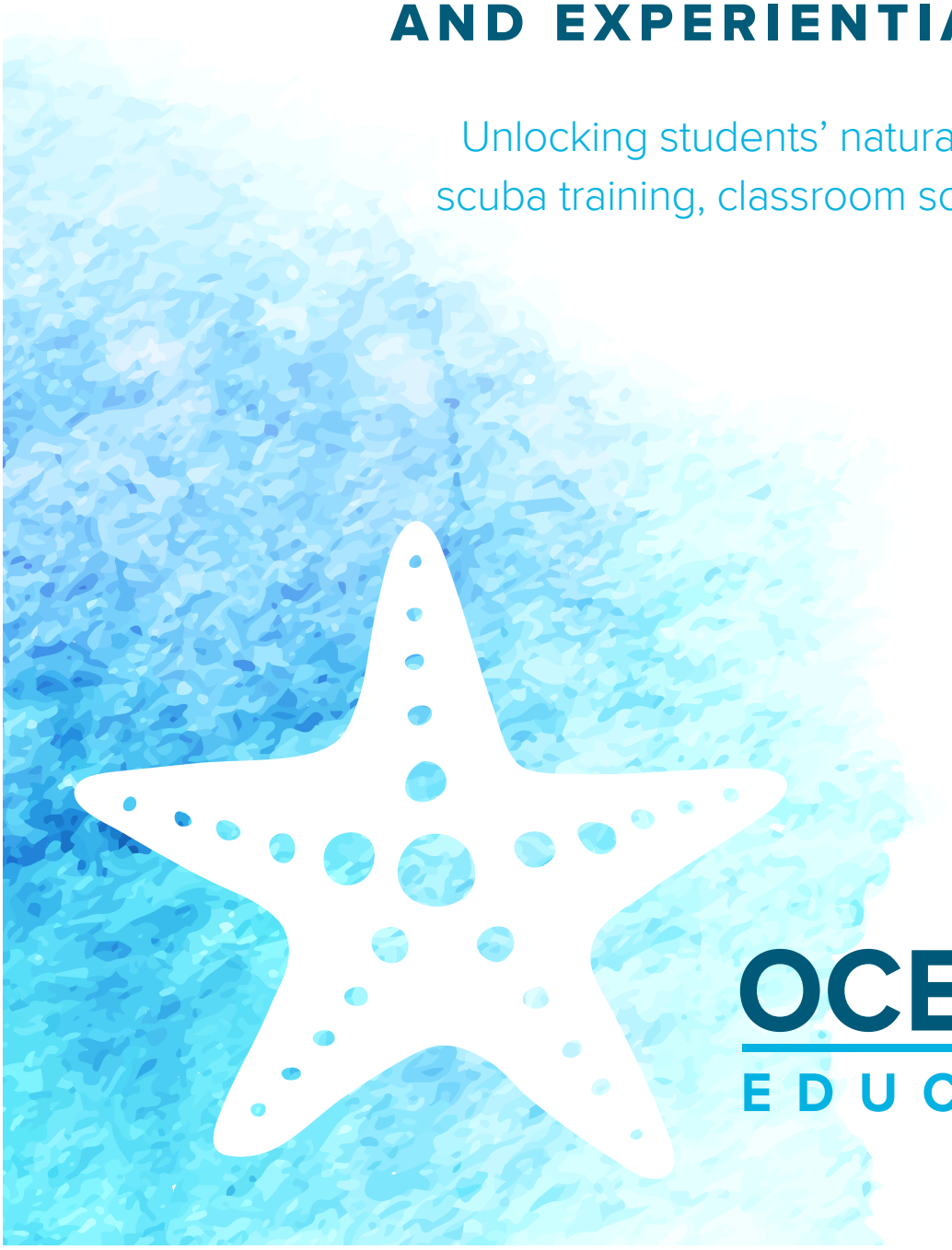
TIDES

TEACHING INTERDISCIPLINARY AND EXPERIENTIAL SCIENCES

Unlocking students' natural curiosities through scuba training, classroom science, and fieldwork.



OCEANFIRST
EDUCATION

WHAT IS TIDES?

TEACHING INTERDISCIPLINARY AND EXPERIENTIAL SCIENCES

TIDES was launched in Boulder, CO in 2009 to connect students to the ocean, regardless of where they live. Developed collaboratively between Ocean First and Ocean First Education, TIDES combines engaging, interdisciplinary science curricula, experiential learning, and confidence-building scuba diving to unlock students' natural curiosity and passion for the ocean.

GRADES **7 - 12**

PROGRAM BENEFITS

This versatile program permits students to enter at any grade and even the most ambitious will find themselves challenged throughout our two, four, and six-year programs. Divided into three components, TIDES includes scuba training, classroom science, and fieldwork.

Scuba Training

Classroom Science

Fieldwork

INCREASE STUDENT ACHIEVEMENT

- **Learning to scuba dive builds confidence**, self-esteem, and a passion for marine science. Students receive invaluable insights about themselves and a foundation to continue their paths as divers and ocean ambassadors.
- **Students have the opportunity to conduct underwater surveys,** explore shipwrecks, study coral seeding, and become an underwater naturalist and photographer.
- **Students receive real-life experiences in marine research** and scientific diving. These place-based learning opportunities provide a window into the careers of marine scientists, technicians, and field researchers.
- **Students practice critical thinking and data analysis**, which together introduce them to the process of asking questions, defining problems, and carrying out investigations in real-world settings.

"Our middle school divers enjoyed one of the most impactful experiences of their young lives in Grand Cayman. The TIDES program frames diving in terms of understanding the marine realm, and using dive skills to move beyond recreational diving. Our year-two students are collecting fish survey data and using their newfound digital underwater photography skills to document reef health."

- Steve Newman | Science Teacher | Kent Denver School

4 YEAR PROGRAM

	SCUBA TRAINING	CLASSROOM SCIENCE	FIELDWORK
YEAR 1	OPEN WATER CERTIFICATION	OCEAN LITERACY FISH ID	NONE
YEAR 2	BUOYANCY U/W PHOTOGRAPHY BOAT DIVER	NATURAL HISTORY OF CORAL TRUTH ABOUT SHARKS OR SEA TURTLE ECOLOGY	REEF.ORG ROVING DIVER OR LASER PHOTOGRAMMETRY
YEAR 3	DEEP DIVING WAVES, TIDES & CURRENTS NIGHT & LIMITED VISIBILITY	MARINE ECOLOGY TRUTH ABOUT SHARKS OR SEA TURTLE ECOLOGY	CORAL RESTORATION OR INVASIVE LIONFISH SURVEYS
YEAR 4	NAVIGATION WRECK DIVING NITROX	BIODIVERSITY OF THE OCEAN OUR IMPACT ON THE OCEAN	COMPARE MPA WITH OUTSIDE REGIONS

6 YEAR PROGRAM

	SCUBA TRAINING	CLASSROOM SCIENCE	FIELDWORK
YEAR 1	OPEN WATER CERTIFICATION	OCEAN LITERACY FISH ID	NONE
YEAR 2	BUOYANCY U/W PHOTOGRAPHY BOAT DIVER	NATURAL HISTORY OF CORAL TRUTH ABOUT SHARKS OR SEA TURTLE ECOLOGY	REEF.ORG ROVING DIVER OR LASER PHOTOGRAMMETRY
YEAR 3	DEEP DIVING WAVES, TIDES & CURRENTS NIGHT & LIMITED VISIBILITY	MARINE ECOLOGY TRUTH ABOUT SHARKS OR SEA TURTLE ECOLOGY	CORAL RESTORATION
YEAR 4	NAVIGATION WRECK DIVING NITROX	BIODIVERSITY OF THE OCEAN OUR IMPACT ON THE OCEAN	CORAL REEF HEALTH INDEX
YEAR 5	FIRST AID, CPR, AED, O2 STRESS & RESCUE	A DYNAMIC OCEAN OCEAN DISCOVERIES	INVASIVE LIONFISH SURVEYS
YEAR 6	SCIENCE OF DIVING	AN EVOLVING OCEAN OCEAN ECOSYSTEMS	COMPARE MPA WITH OUTSIDE REGIONS

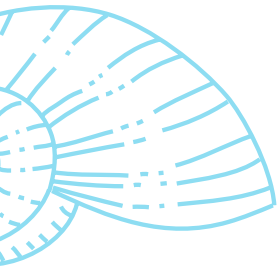


SCUBA TRAINING

Students' passport to the underwater world begins with the Open Water certification, which includes home study, classroom workshops, and pool and open water training. During this course, students will develop the knowledge and skills necessary to be safe, confident, and conscientious divers. It will also provide the foundation for their fieldwork and continuing education.

CLASSROOM SCIENCE

Students begin by investigating the seven principles of Ocean Literacy. These fundamental concepts will provide the backbone to understanding how we are connected to the ocean and why it's so important. Students will then learn about coral reefs and their amazing inhabitants and start to understand the many factors that affect their health. By the time they graduate from the TIDES program, students will have a developed and refined understanding of the marine environment and be well positioned to pursue a career in a number of related fields.



FIELDWORK

Beginning in year two, students will utilize their newfound scuba skills and apply their content knowledge to engage in international marine science research programs. Students will participate in underwater fish and coral surveys, laser photogrammetry, coral seeding programs, and contribute to invasive species surveys. Their fieldwork will culminate by combining the skills they have learned over the years to conduct a study on the effectiveness of marine reserves, helping to build a strong foundational understanding of marine ecology.

PROGRAM PARTNERS

DIVE CENTERS AND SCHOOL GROUPS

The TIDES program not only provides an incredible formula for combining scuba training, classroom science, and fieldwork, but it's also designed to help dive centers market and sell their services to the largest emerging demographic within the industry, millennials. These adventurous, tech-savvy, and conscientious consumers represent the future of scuba diving, yet have been notoriously difficult to reach. The TIDES program has demonstrated a proven formula to target this youthful demographic, which not only helps generate revenue and expand customer bases, but also lays the foundation for the marine scientists, stewards, and explorers of tomorrow.

RESEARCH DESTINATIONS

Where TIDES truly separates from the competition is in fieldwork. Our experiential and place-based learning programs separate our students' experiences from anything else on the market. Ocean First Education has established relationships with a number of reputable dive operators and research organizations to provide a selection of national and international locations where students can take the skills and content they've learned in the program and apply it in a real-world setting. TIDES is a one-of-a-kind immersive experience that engages and empowers students, helping to unlock their natural curiosities for science and the marine world.

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