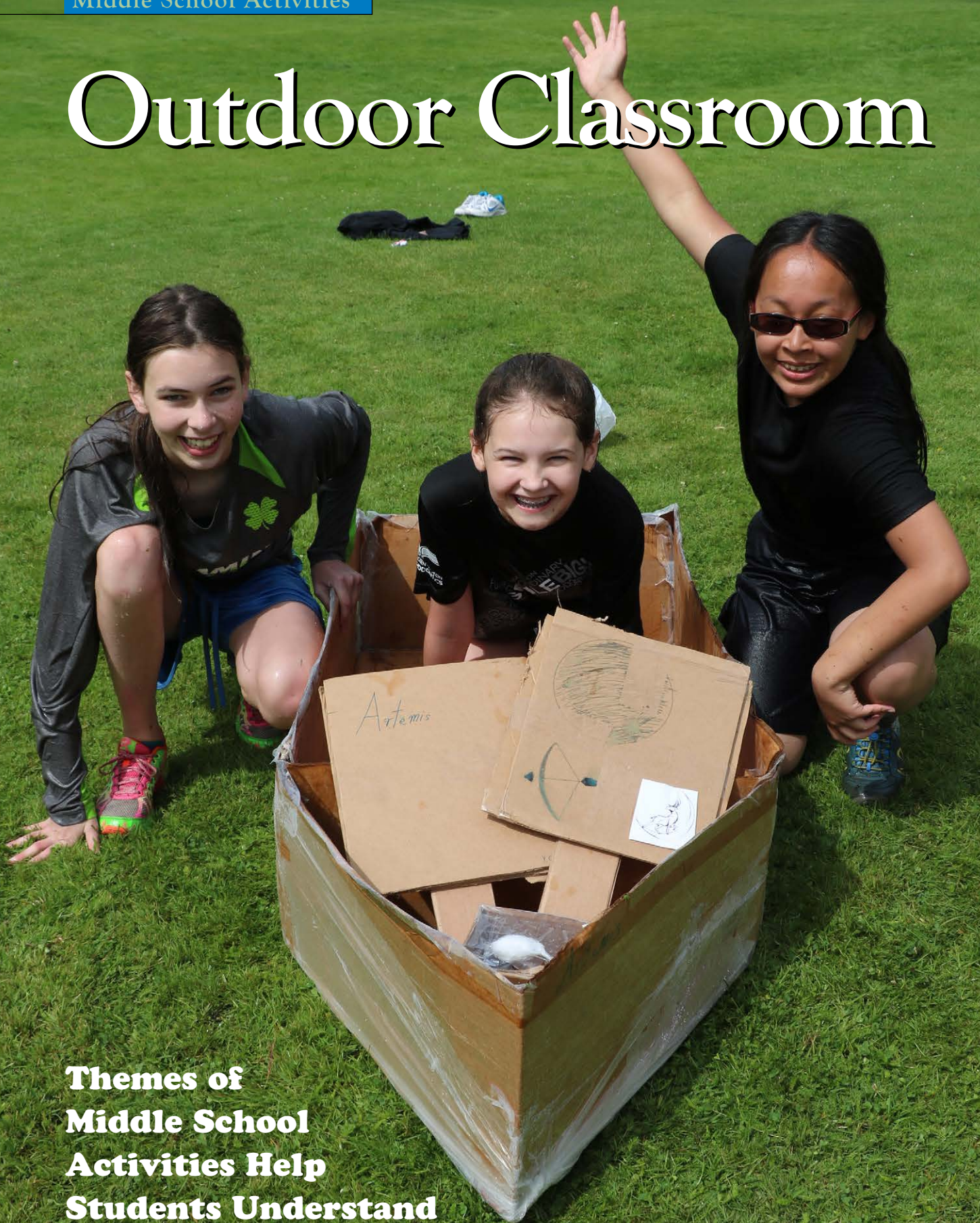


Outdoor Classroom



**Themes of
Middle School
Activities Help
Students Understand
the World Around Them**

“The planet needs to be a better place because of us and not a worse place in spite of us.”

Science teacher Brian Hutchinson’s comment sums up the reason why Saint George’s School has organized lessons for each Middle School grade around overarching themes inspired by the school’s natural setting.

A busy year of classroom assignments, outside activities, and targeted field trips all tie into the class themes. For sixth grade, the focus is on *River Connections*; for seventh grade it’s being *Water Warriors*; and eighth graders practice *Sustainability*. When introducing new concepts in each academic area, SGS teachers make sure students get out into the field for practical applications, so they walk away with a better understanding.

The *River Connections* theme for sixth grade revolves around the rivers in the Spokane area and how human activity, from littering to the building of dams, effects the water’s quality.

Throughout the year, the sixth graders experience a variety of activities that revolve around the class theme, such as a twelve-mile bike ride down the Centennial Trail, a snowshoe trip to Mt. Spokane to learn about the snowpack and its influence on water levels in area rivers, and also a trip to the nearby state fish hatchery to collect fish eggs to raise and release. The hatchery visit also prepares them for their capstone experience at the end of the school year.

That big adventure is an overnight trip to the Nez Perce Reservation in Central Idaho. The students visit many areas on and around the reservation, including the Lower Granite Dam, the Nez Perce National Historic Park and Museum, the “Heart of the Monster” where the tribe’s creation myth takes place, the Nez Perce Tribal Fish Hatchery, and the federal

Dworshak Dam Hatchery. The students learn about the dams and their effect on the migratory patterns of salmon, which the Nez Perce had relied on for food, as well as the efforts that have been taken to reverse the negative effects caused by the dams.

Middle School Science teacher Joelle Neiwert explains that “the goal is to get the students to realize that for every action, even actions that do not appear harmful, there are unintended consequences, especially in ecosystems.” The students also venture off campus several times throughout the year to collect water samples from the Spokane River, which they test for pH and oxygen levels to monitor the health of the river.

As students move into seventh grade, they continue to learn about water and its scarcity. As *Water Warriors*, they study the shortage of potable water and how to sanitize water with limited resources. To do this, the class takes a trip in early fall to Camp Spalding on Davis Lake. While at camp, the students go on a mile-long hike to fill up a water bottle with stream water that is less than ideal for drinking or cooking. They then hike back to camp and attempt to use the sun’s rays to purify the water they had hiked miles to retrieve.

Retiring math teacher Judy Fitzpatrick says that the goal for this outing “is for students to realize that people in many parts



MacKenzie Crittenden, Executive Asst. to Head of School & Registrar

Opposite: The winning team from the 6th grade’s cardboard boat race.

Below: Eyeing an eel at the Nez Perce Tribal Fish Hatchery, and the 6th grade gathers at “The Heart of the Monster” on the Nez Perce Reservation.



Continued on Page 6





Above:
7th graders show off scarce liquid found during the Quest for Water.

Below:
Hiking and climbing at Camp Spalding, and observing bugs from the stream through campus in the Biology Lab.

of the world have to hike miles in order to fill up gallons of dirty water that they will then have to sanitize, or attempt to, after their hike back home. We want students to know that not everyone has the luxury of turning on a faucet and watching crystal clear water come out continuously.”

In an effort to learn about the ecosystem only a few steps away from the Middle School’s doors, the students collect benthic macroinvertebrate samples from the campus stream. The students study their collections



to determine the creatures that exist in the water. Following the collections, the students clean up the stream by pulling weeds from the water and picking up any trash that may have accidentally ended up there.

After finals are complete and lockers are cleaned out, the seventh graders gather on Graduation Lawn for their annual “Quest For Water.” During the Quest, students set out in groups with an empty water bottle with high hopes of bringing back at least 40 oz. of water. Using GPS locaters, they have to find caches of water that are hidden on the wooded hillsides above the SGS campus.

As students track down the water sources, they have to use their limited tools to extract the water from the source and transfer it to their bottle. But there is a twist. As students locate water, it is very likely that the source will be dry and no water will be available. After hiking through the woods to find the caches that actually hold water, the teams then return and compare what they find with their fellow *Water Warriors*.

“This is a great and fun way to teach the students what it is like to not have a guaranteed source of water,” says Jim Tuck, Health and PE teacher. “The students leave with a new understanding that water is precious,” and the value of conserving scarce resources.

All these lessons prepare students for their culminating year of middle school at Saint George’s. Having learned about river connections and the shortage of clean water, they are ready to spend a year exploring the concept of *Sustainability*.

To start off their year, the eighth graders learn what sustainability means and translate it into their own experience. Hutchinson explains that “when the students are allowed to explore the concept of sustainability and look at various definitions, they are able to create personal definitions of sustainability.” Their definitions this year ranged from economics and the environment to languages and cultural sustainability. “The students really took this project and ran with it.”

To understand one type of sustainability, the eighth grade class visits the North County Food Bank and its local community garden. The students help out in the garden and learn that growing your own food is a source of sustainability for many local families. "The amount of work completed by the class in a three-hour time frame would have taken the food bank employees four to six weeks to accomplish," says Hutchinson.

Not all eighth grade trips focus on sustainability, but they all give students a chance to test their classroom learning in a new setting. One of the oldest traditions at Saint George's is the eighth grade's Coast Trip in May. Travelling to the Olympic Peninsula for a week, they put their marine biology skills learned in science labs to work. The class explores the beach environment and examines the organisms and ecosystems found in the tidal zone. Hutchinson says that "one of the best ways for students to become familiar with the knowledge gained in the classroom is for them to get out and practice it; this trip does exactly that."

They go hiking through the forests, examining the tidal pools, and relaxing at the campground, all while putting their knowledge of sustainability to good use by picking up any trash left behind from previous groups that visited the area. On the last day of the trip, no one is allowed to get on the bus until every piece of litter is picked up off of the ground, whether or not the students left it there. "This is usually an easy task because of the hard work and lessons learned throughout the year that resonate with the students," says Hutchinson.

Although not every unit and class lecture had to do with water, the fun end-of-year games embrace a liquid theme! One of the water activities for the sixth grade is cardboard boat races. Students get materials, packing tape, cardboard, and a garbage bag, with the goal of designing and building a cardboard boat that can transport a student to the opposite side of the river bank and back without sinking.

Joelle Neiwert says this activity "encourages the students to think about the design parameters that would allow the boat to float and be aerodynamic in the water. The boat races, specifically the building process, is a great example of a "maker's space," the process of giving students the materials and guidelines of the task at hand and then letting them work as a team freely." Some of their designs zipped through the water; others collapsed in soggy shrieks!

The eighth grade class also engages in a fun activity that embraces the theme of water, the annual Battle of Gettysburg water fight. As part of the social studies unit, the eighth graders reenact this historic Civil War confrontation with squirt guns and water balloon artillery. The class is split in half to make up the two armies. The Confederate Army attempts to cross a grassy field and capture a flag behind the Union Army's lines with at least one dry soldier!

Whether these end of the year activities complete a year-long theme or just provide watery activities for hot spring days, Saint George's campus makes an ideal learning environment. As SGS students flow through their middle school years, they learn how their actions can help the natural world around them become a better place to live.

— MacKenzie Crittenden,
Executive Assistant to
Head of School & Registrar



Above:
The Union Army
after their soggy
Battle of Gettysburg.

Below:
Finding barnacles
in the Olympic
Peninsula tide
pools, and recording
observations on the
8th grade's Coast
Trip in May.

