Abstract Guidelines

A research proposal abstract is a summary of an anticipated project. Using **200 words or less,** the abstract conveys the value of the proposed research, projected methods and expected outcomes. For *Water is Life* the abstract also helps conference judges to be assigned according to topics that match their expertise.

Abstracts are due by October 31, 2019
Submit abstract to waterislife2020@saintstephens.org using Microsoft Word or Google Doc

At the top of your Abstract include:
-Title - the title may be the question being researched or a more generally descriptive title
-Team Name, Team School, Team Country
-Student Team members

A suggested format for a research proposal abstract includes:

Sentence One/Two: A one-two sentence rationale for the project. Why is this important or interesting?
Sentence Three/Four: A statement of the problem to be solved or question asked and working hypothesis
Sentence Five/Six : A brief summary of the methods and materials that will be used to complete the project.
Use prose format, not list format.
Sentence Seven/Eight:Expected outcomes.
As long as all of this information is provided, following the suggested format sentence by sentence is not necessary.

General Advice:

-Check to make sure that your summary is **200 words or less.**
-Be descriptive, but be concise.
-Use formal language, avoiding slang or abbreviations

Three Sample Abstracts:

1. Dissolved inorganic carbon is used by hard corals to build calcium carbonate skeletons. The skeletal growth of corals involves two different processes. The first process occurs at night in which a calcium carbonate crystal framework is laid down. The next day, the nucleation of the new crystals results in increased skeletal density. Due to increased CO2 emissions in the atmosphere and the subsequent increase in carbonic acid in the ocean, there is less and less carbonate available to calcium carbonate skeleton building organisms, such as coral. Previous studies have shown that the addition of 2 mM bicarbonate to tanks of branching corals, such as *Porites porites*, has doubled the calcification rate of the coral skeleton. *(Marubini et al., 1999)* This experiment will determine what concentration of NaHCO3 will maximize photosynthesis, growth rate, and calcification. Meredith Moore - 2018

2. Due to climate change rivers have to carry more water in the direction of the North Sea. Heavier more inconsistent rains and the melting of glaciers in Central Europe are the main causes for this surplus in water in the Netherlands. Sea level rise makes it hard for our rivers to get rid of all this water. Action is necessary.
The goal of the Dutch Room for the River Program is to give the river more room to be able to manage higher water levels. At more than 30 locations, measures will be taken that give the river space to flood safely. Moreover, the measures will be designed in such a way that they improve the quality of the immediate surroundings. The Room for the River program will be completed by approximately 2016.
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We will look into the direct environment of the school and investigate which measures can be taken to create more room for the river and what the effects would be. If measures already have been taken, we will explain why they were taken and which effects these measures have or have had.

Marguerita Alting von Geusau, Joris Kolsters, Jurren van Melis, Eva Scholten - 2016

3. In past years, Tokyo Bay had been the fundamental center of aquamarine culture and business, until the sudden waves of modernization in the 70s polluted the water to a severe extent. Since the events of the 2020 Tokyo Olympics will be held partly in Tokyo Bay, we will research the current situation through interviews with the government and NPOs coming up with solutions to improve the water quality.
The causes of pollution are heavily connected with our daily routines, which directly affect the waters that were once abundant in marine life. By educating the people in our communities and raising awareness to prevent pollution, we can take some steps towards a cleaner, purified Tokyo Bay. Through this project, the next generation is going to be our target audience. We plan on giving presentations to elementary school students residing around the Tokyo Bay area, outlining the basic issues around water in the Bay and encouraging them to start taking initiatives for its recovery. Involving the students into our plan will help contribute to water purification in the future generations, and raise awareness in the local communities.

Rina Morooka, Chihiro Arima, Yuki Ito - 2018