



# ECO-SCHOOLS PATHWAYS TO SUSTAINABILITY ALIGNMENT TO THE GLOBE PROGRAM

## **HYDROSPHERE INVESTIGATION**

Water participates in many important natural chemical reactions and is a good solvent. GLOBE students provide valuable data to help fill these gaps and improve our understanding of Earth's natural waters. Students and scientists investigate hydrology through the collection of data using measurement protocols and by using instruments that meet specific specifications.

#### ECO-SCHOOLS USA PATHWAY

# GUIDING QUESTIONS TO SUPPORT INTEGRATION



## **BIODIVERSITY**

Investigate and increase biodiversity at school and within the community.

How does <u>waterway health</u> impact the **flora and fauna** in and around our school community?



#### CLIMATE CHANGE

Find meaningful lasting ways to reduce the school's carbon footprint.

Over time, how has **climate change** modified <u>water chemistry</u> or altered <u>water temperature</u>, and how have these changes impacted the wildlife that call the habitat home?



#### CONSUMPTION AND WASTE

Analyze and address the full life cycle of a school's products including what teachers, staff and students consume.

Is there a relationship between **litter** found in <u>waterways and their</u> <u>health</u>? Has this had an impact on local vegetation or on overall ecosystem health?

# **HYDROSPHERE INVESTIGATION, PAGE 2 OF 4**

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# **ECO-SCHOOLS USA PATHWAY**



## **ENERGY**

Investigate energy habits, the school and states fuel mix and ways to conserve energy.

# GUIDING QUESTIONS TO SUPPORT INTEGRATION

What is the <u>quality of water</u> within 100 yards/91 meters of our local **power plant**?



#### LEAF

Identify forest systems and the roles they play in the environment, a community and the economy.

Is there a relationship between more frequent **forest system health** and the health of our local watershed?



#### HEALTHY LIVING

Promote sustained, unstructured time outdoors, increase physical activity and other healthy lifestyle choices that benefit the mind, body and soul.

How have <u>water practices</u> contributed to the spread of disease carrying mosquitos? What solutions can students find that will help **reduce the risk within the community**?



#### HEALTHY SCHOOLS

Eliminate toxics and hazardous materials by replacing them with clean, green products practicing proper methods of disposal, both inside and outside the school.

What impact does improper disposal of **toxic or hazardous waste** have on a community's <u>ground water supply</u> and/or their <u>watershed</u>?

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# SCHOOLYARD HABITATS

Design, develop and maintain sustainable gardens as laboratories for learning, community building and as safe places for reflection and mindfulness. What is the relationship between the <u>water quality</u> of our **school pond** and the types of plants and wildlife the ecosystem can support?



#### SUSTAINABLE FOOD

Investigate what it takes to bring food to the table, to the community. Research and implement healthy, nutritious, sustainable and accessible food solutions.

How are the <u>water chemistry</u> requirements different between organic, traditional and hydroponic **food systems**?



#### TRANSPORATION

Sustainable solutions to reduce travel footprints by investigating consequences and evaluating solutions

How does **traffic** around our school impact our local <u>watershed</u>?

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# ECO-SCHOOLS USA PATHWAY





WATER

Investigate the school community's water habits, research water resources and implement and practice conservation strategies.

Is there a relationship between water quality and water conservation?



WOW, WATERSHEDS, OCEANS AND WETLANDS

Water connects us all and usable water is finite. Investigate the health of bodies of water small and large, identify the habitat requirements of plant and animal species and instill a stewardship and conservation ethic.

How does **wetland** <u>water quality</u> change after a rainfall? Do these changes impact long term health or survival of local bird populations?