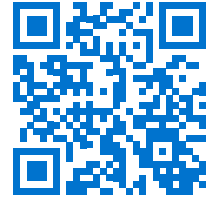




# KC TO THE SEA

KC Water offers water quality education to students of all ages. All lessons can be modified for various grade-levels to meet science standards and are free of charge to schools, residents, and businesses in Kansas City. Schedule a lesson at [water.education@kcmo.org](mailto:water.education@kcmo.org).




**OVERVIEW:** Students learn about watersheds and how precipitation moves through a watershed. The lesson focuses on stormwater runoff and contaminants carried to our waterways. This lesson also teaches students to think about their city when learning about the journey of stormwater. Finally, students calculate the amount of water found in a square yard and compare this to water falling around common impervious surfaces.

**TOTAL CLASS TIME:** Approximately 1 hour

**KEY COMPONENTS:** Introduction includes watersheds and the movement of water, groundwater, and stormwater runoff. Main story includes contaminants found in runoff, sewer systems, and ways pollutants travel with runoff. Conclusion engages students in measurements of water and calculating the amount of water in stormwater runoff. In addition to NGSS/MLS, this lesson also relates to standards for Language Arts, Mathematics, and Social Studies.

**KEY VOCABULARY:** Watershed, stormwater runoff, impervious and pervious surfaces



Water  Quality  
EDUCATION

# KC TO THE SEA

## NEXT GENERATION SCIENCE STANDARDS / MISSOURI LEARNING STANDARDS

| <u>PHYSICAL SCIENCE</u>                                      |  | Grade 4    | Grade 5    | Grade 6-8    |
|--|--|------------|------------|--------------|
| PS1 - Matter and Its Interactions                            | A - Structure and Properties of Matter               |            | 5.PS1.A.1  |              |
| PS2-Motion & Stability: Forces & Interactions                | A- Forces and Motion                                 | 4.PS2.A.1  |            |              |
|  | B-Types of Interaction                               |            | 5.PS2.B.1  |              |
|  |  | 4.PS2.B.2  |            |              |
| <u>EARTH and SPACE SCIENCE</u>                               |  | Grade 4    | Grade 5    | Grade 6-8    |
| ESS2 - Earth's Systems                                       | B- Plate Tectonics and Large-Scale Systems           | 4.ESS2.B.1 |            |              |
|  | C- The Role of Water in Earth's Surface Processes    |            |            | 6-8.ESS2.C.1 |
| ESS3 - Earth and Human Activity                              | A- Natural Resources                                 |            |            | 6-8.ESS3.A.1 |
|  | C- Human Impacts on Earth's Systems                  |            | 5.ESS3.C.1 | 6-8.ESS3.C.1 |
|  |  |            |            | 6-8.ESS3.C.2 |
| <u>LIFE SCIENCE</u>  |  | Grade 4    | Grade 5    | Grade 6-8    |
| LS1-From Molecules to Organisms: Structure & Processes       | C-Organization for Matter & Energy Flow in Organisms |            | 5.LS1.C.1  |              |
|  | C-Ecosystem Dynamics, Functioning and Resilience     |            |            | 6-8.LS2.C.2  |
| <u>ENGINEERING TECHNOLOGY and the APPLICATION OF SCIENCE</u> |  | Grade 4    | Grade 5    | Grade 6-8    |
| ETS1 - Engineering Design                                    | A- Defining and Delimiting Engineering Problems      |            |            | 6-8.ETS1.A.1 |
|  | B- Developing Possible Solutions                     |            |            | 6-8.ETS1.B.1 |
|  |  |            |            | 6-8.ETS1.B.2 |