

Motion Graphics Video Script

Script	Visuals
Imagine gazing at a murky stream running past your house, where clear waters once flowed. The banks stripped of vegetation, local fish populations dwindling, their habitats destroyed by stormwater and contaminants. The local municipality's budget is strained due to the frequency of flooding repairs. Tourists aren't favoring the location anymore, so restaurants and small businesses along the river bank are closing. Your house has lost much of its market property value. This scene is the grim reality of development without sustainability—a nightmare that spirals to affect everyone in your community.	Opening visuals of a polluted stream, eroded banks, and struggling fish populations, restaurants closing, and devaluation of house, that set a somber tone.
Enter Amara, a sustainability advocate and concerned resident. She consults widely among her STEM peers. She realises they've got to get help from someone within Ecological and Environmental Sciences to start with biological assessments of fish populations. From the field of technology, the idea surfaces of utilizing Geographic Information Systems to analyze changes in land use around the stream and predict areas at higher risk of erosion. A colleague mentions that with the expertise of a chemical engineer, the town can develop and optimize technologies for treating contaminated water. She learns from a mathematician that models can be developed to predict outcomes of various restoration strategies under different budget scenarios. Through her efforts in presenting sustainable solutions to her municipality, she begins the process towards sustainable development.	Cut to Amara presenting to the town council, with animations showing solutions like permeable paving, retention ponds, treating the water, sensors to monitor flows, and water quality and their benefits.
This course on Sustainability in STEM is about empowering you to be like Amara—to innovate, to change, to protect. It's about understanding that STEM professionals play a pivotal role in crafting a sustainable future. We believe in preparing you to tackle global challenges with solutions that harmonize with our communities and planet.	Display engineers working on sustainable projects, with a focus on innovation and positive environmental impact.
Without sustainable practices, the consequences are dire: resource depletion, environmental degradation, socio economic downturn, and jeopardised futures. STEM professionals need to envision and implement systems that are efficient yet harmonious with communities.	Contrast images of environmental degradation with sustainable solutions, highlighting the positive transformation.

Construct

Guided by the United Nations Sustainable Development Goals, let's conceptualise solutions that prioritize longevity, equity, and ecological integrity. With every module, from sustainable resource management to ethical considerations in planning projects, you're preparing to contribute to a world where life thrives.	Scenes of students engaging with the material, group projects, and the application of sustainable principles in real-world scenarios.
This course encourages you to think deeply about your role as a STEM professional in shaping a sustainable future. It's about embracing the complexity of sustainability, understanding its challenges, and innovating for the better. Remember Amara? She does not have it all her own way, of course. There are questions and pushback from the municipality on her ideas. But she's ready and equipped to keep at it.	Visuals of ethical debates, policy discussions, and community engagement activities, emphasizing the importance of ethical considerations in projects.
As we stand at the crossroads of innovation and responsibility, this course is not just about acquiring knowledge; it's about inspiring action. The time has come to lead the transition to a sustainable world and we would like to equip you to face the challenges of sustainability with creativity, commitment, and compassion. Join us on this journey, and be part of the solution.	Closing with a call to action, showcasing a diverse group of students ready to embark on their sustainability journey, overlaid with the course logo and invitation to join.

Additional resource used:

1. Upper Midwest Water Science Center. (2019, March 17). *Evaluating the potential benefits of permeable pavement on the quantity and quality of stormwater runoff*. U.S. Geological Survey. <https://www.usgs.gov/centers/upper-midwest-water-science-center/science/evaluating-potential-benefits-permeable-pavement>