

**Curriculum Unit
Title**

The Environmental Impact of Urbanization and Land Use Changes in Delaware

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KEY LEARNING, ENDURING UNDERSTANDING, ETC.

Students study the major environmental impacts of urbanization and urban sprawl, focusing specifically on how land use changes impacts the environment. Specific attention is given to impervious surfaces and stormwater runoff, as well as the urban heat island effect.

ESSENTIAL QUESTION(S) for the UNIT

What are the major environmental impacts of urbanization and land use change in Delaware?
How do impervious surfaces impact the local environment?
What is the urban heat island and how is it related to land use change?

CONCEPT A

Urbanization and Land Use Changes

CONCEPT B

Impervious Surfaces

CONCEPT C

The Urban Heat Island

ESSENTIAL QUESTIONS A

What causes urbanization?
How does land use/land cover change as urbanization occurs?

ESSENTIAL QUESTIONS B

How does an urban environment alter the natural surfaces in an area?
How do impervious surfaces contribute to degraded water quality?

ESSENTIAL QUESTIONS C

Why are urban areas often significantly warmer than the surrounding countryside?
What key environmental impacts does the urban heat island have on an area?

VOCABULARY A

Urbanization
Land use
Land cover

VOCABULARY A

Impervious surfaces
Stormwater runoff
Water quality

VOCABULARY A

Urban heat island
Natural landscapes
Urban environment

ADDITIONAL INFORMATION/MATERIAL/TEXT/FILM/RESOURCES

Please see the annotated bibliography and Appendix B for resources and how to modify this unit for remote instruction.