

SUSTAINABLE CITY DESIGN CHALLENGE



KEYWORDS

urban planning

sustainable development

smart cities

green infrastructure

community design

Urban planners and sustainable city designers create communities that are better for people and the planet. They design public transport systems, bike paths, green buildings, parks, and renewable energy systems to make cities healthier, cleaner, and more efficient. They also plan how neighborhoods grow so that resources like water, energy, and land are used wisely. These green jobs play a big role in solving problems like traffic congestion, air pollution, and climate change. As cities around the world grow, sustainable urban design helps make sure they are livable and resilient for the future.

AGE RANGE

12-16 years

SMALL GROUPS

(4-5 students)

DURATION

45 minutes

MATERIALS

- City maps
- Planning criteria checklists
- Colored pencils
- Sustainability guidelines
- Presentation templates



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PROCEDURE

1. Analyze current city area for sustainability challenges
2. Identify three priority improvement areas
3. Design solutions for transportation, energy, and green space
4. Create visual plan showing proposed changes
5. Calculate projected benefits (energy savings, emissions reduction)
6. Present plan in 3-minute city council simulation

INSTRUCTIONAL GUIDELINES FOR FACILITATOR

- Provide specific sustainability criteria to focus efforts
- Use real city examples to make activity relevant
- Encourage consideration of social and economic factors
- Connect to urban planning careers



LEARNING OUTCOMES

- Understand sustainable urban development
- Learn about urban planning careers
- Practice systems thinking and design

EXTENSION SUGGESTIONS

- Research sustainable city examples worldwide
- Attend local planning meetings
- Analyze transportation patterns in your community

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