

TOPIC PACKS · YEAR 3-4 / GRADE 2-3

# Project: Sustainable City

Y3-4 cross-curricular, 4 weeks

## About this project

A 4-week project where children design a sustainable city. The brief is open: each group of 3-4 children is given a starting population (e.g. 10,000 people), a square of land, and a budget. They must decide: where do people live, work, get food, get power? How does waste go? Where does the water come from? How do people travel? Unlike worksheets, there are NO single right answers. There are stronger and weaker ones, and children must justify their choices. The final outcome is a city plan and a persuasive pitch — 'why our city would be the best place to live'. This project is genuinely interdisciplinary. Children encounter geography (land use), science (energy, water cycle, ecosystems), maths (calculations, percentages, budgeting), writing (persuasion, presentation), and the soft skills of teamwork and decision-making.

## Week 1 — Research and starting questions

DAY 1 (1 hour): Hook • Show 4 contrasting cities: a sprawling US city, a compact European city, an eco-village, a megacity. Discuss: which would you want to live in? Why? • Introduce the brief. DAY 2 (1 hour): What does a city need? • Brainstorm: what does every city need? (Housing, water, food, energy, transport, jobs, waste, schools, health, parks, communities.) • Big list on the board. Each group copies into their planning book. DAY 3 (1 hour): Sustainable energy research • Compare energy sources: coal vs. solar vs. wind vs. nuclear. Each group researches one. • Class shares findings: pros, cons, environmental impact. DAY 4 (1 hour): Water and food research • Where does our water come from? Where does our food come from? • Concept: food miles. Self-grown vs. imported. DAY 5 (1 hour): Transport research • Compare: cars, buses, trains, bikes, walking. Time, cost, environmental impact, who can use them. • Each group decides what their city's transport will look like.

## Week 2 — Plan the city



DAY 6 (1 hour): Land use • Each group is given a paper square representing their land — 1 sq km say. • They sketch (in pencil, plenty of erasing) where everything goes: housing, schools, parks, factories, food production, power generation. DAY 7 (1 hour): Maths constraints • How many people = how much housing? Maths input: a typical 4-bedroom home houses ~5 people; a block of flats can house 30. Calculate. • Energy: each person needs ~10kWh of energy per day. How much does the city need in total? DAY 8 (1 hour): Refine the plan • Groups revisit their plan. Where could parks go? Where do schools fit? Is there a community centre? DAY 9 (1 hour): Final plan drawing • Big-paper, neat, labelled. Colour-coded by zone (residential, industry, energy, agriculture, parks).

### Week 3 — Persuasive pitch

DAY 10 (1 hour): Persuasion lesson • What makes writing persuasive? Refer to model text 'Why You Should Read Every Day' (free on /model-texts/). • Identify devices: rhetorical questions, statistics, emotive language, rule of three, call to action. DAY 11 (1 hour): Drafting the pitch • Each group writes a 200-300 word pitch: 'Why YOU should live in OUR city'. • Use at least 3 persuasive devices. DAY 12 (1 hour): Editing • Peer-edit: one group reads another group's pitch. Suggest 2 improvements. • Children make edits. DAY 13 (1 hour): Pitch rehearsal • Each group rehearses delivering their pitch. Each child speaks at least once.

### Week 4 — Pitch day and reflection

DAY 14 (1 hour): PITCH DAY • Invite another class, the headteacher, or parents. • Each group: 3-minute pitch + 2-minute Q&A. • Audience votes for the city they'd most like to live in (with reasons given). DAY 15 (1 hour): Awards and reflection • Award (peer-voted): best plan, best pitch, most innovative, most realistic. • Reflection: What was hardest? What would you do differently? Did your group work well together? DAY 16 (45 mins): Big questions • Whole-class discussion: Now you've done this — what changes would you want to see in YOUR real town/city? Why?

### Group roles (rotate weekly)

Role	Weekly responsibilities
Mayor	Chairs decisions, makes sure everyone is heard, presents the pitch
Engineer	Leads on energy, water, transport — does the maths
Town Planner	Owens the map. Does the labelling. Makes sure all needs are placed.



Role	Weekly responsibilities
Communications Officer	Drafts the pitch. Liaises with audience.

**Assessment opportunities**

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**Stretch and inclusion**

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