



EduTrend Contents

G4C · BUILDING AND CONSTRUCTION GAMES · MIDDLE SCHOOL

Mini City Planners

Design and build a model neighbourhood from recycled materials to a brief with competing needs

Ages 12–14

Level: Intermediate

45 minutes

Teams of 4 · up to 32

Activity 04

Inside: activity at a glance · step-by-step session plan · facilitator notes · 3 student worksheets · assessment checklist

ACTIVITY 04 · AT A GLANCE

Mini City Planners

Teams receive a brief for a small model neighbourhood: it must include homes, a school, a park and a safe walking route, all on one sheet of card. They sketch a plan, agree priorities and build from boxes, tubes and paper. Each team presents its city, explaining one trade-off, and other teams ask one question about a design choice.

Learning outcomes

By the end of the session students can:

- plan to a brief;
- balance competing needs;
- build to scale roughly;
- explain design trade-offs.

KEY WORDS

brief · plan · trade-off · scale · route
· model

CURRICULUM LINKS

Design and technology.
Geography: settlements. PSHE:
cooperation.

1

WARM UP

Hands and ideas
ready

2

EXPLAIN

One challenge,
clear rules

3

BUILD

Try, test, rebuild

4

TEST

What happens?

5

TALK

Why did it stand or
fall?

6

TIDY

Photo, then clear
up

Materials (per team)

- Card base per team
- Boxes, tubes, paper, tape
- Brief cards
- Worksheets 1, 2 and 3

Before the session

- Collect recycled materials.
- Write briefs.
- Prepare bases.
- Model a quick sketch.

SAFETY

Use child-safe scissors; adults handle cutting thick card.

ACTIVITY 04 · SESSION PLAN

Step by step

The trade-off explanation is where the thinking shows.

Time	What happens	Say or ask
0–5 min Warm up	What makes a good neighbourhood?	<i>“What do people need nearby?”</i>
5–12 min Plan	Read brief and sketch.	<i>“What will you prioritise?”</i>
12–37 min Build	Build the city.	<i>“Does the route stay safe?”</i>
37–45 min Talk	Present and question.	<i>“What trade-off did you make?”</i>

CHALLENGE CARD (print or copy onto the board)

Build a neighbourhood that meets every part of the brief and explain one trade-off.

ACTIVITY 04 · FACILITATOR NOTES

The building game know-how in brief

Building in groups asks children to share materials, divide tasks and agree on a design.

Designing for users means balancing different needs.

Common ideas to listen for

- “More buildings means a better city.” Balance matters.
- “Plans must be followed exactly.” Plans can change.
- “There is one right design.” Many can meet a brief.

Adapting the activity

Support

Provide a partly drawn base with a road.

Stretch

Add a constraint, such as a river that must be crossed.

WORKSHEET 1

City plan

Name: _____

Class: _____ Date: _____

Sketch your plan.

Plan

WORKSHEET 2

Brief checklist

Tick each requirement.

Checklist

Requirement	Included?	Where
Homes		
School		
Park		
Safe route		

WORKSHEET 3

Reflection

Reflect.

One trade-off we made was...

FOR THE TEACHER

Assessment checklist

Use during the session. One sheet covers up to eight students; copy as needed.

Student	Meets the brief	Explains trade-offs	Cooperates

Suggested codes: W = working towards · E = expected · G = greater depth

ABOUT THIS ACTIVITY

Mini City Planners is a sample activity from the EduTrend Contents G4C Building and Construction Games programme (middle school, level: intermediate). Every activity in the programme follows the same format: a practical challenge, a clear session plan, facilitator notes and ready-to-print worksheets, so that teachers, club leaders and parents can run it without extra preparation.

Full 15-, 20- and 32-week programmes are available from EduStore at edutrend.org.

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