

Activity title:

2f - Urban change and design – accommodating growing housing demand

(This activity was originally developed by Garry Christoffersen and Craig Batchelor (Boffa Miskell) (SmartGrowth team 2002) and has been adapted with their help and kind permission)

Learning outcome(s):

- Explore urban settlement patterns and urban form.
- Understand the scale of likely future land demand.
- Investigate location constraints and opportunities.

Key words:

Urban settlement; pattern; urban design; land demand

Materials:

- Giant SmartGrowth Block and Map Floor Game – available from Bay of Plenty Regional Council. (Game includes: giant floor maps, 21 x blue blocks with white spots, 36 x blue blocks (plain), 23 x blue blocks with yellow spots, 81 x red blocks, 11 x black blocks (2 x large and 9 x small), 10 x white blocks with green stickers (various sizes), 1 x hospital and 1 x airport)
- Instruction sheet (see following page)
- Assumptions handout (for teachers' background reading) (see following pages)

Approximate time required:

Activities are broken into 20 minute segments. Each numbered activity below takes approximately 20 minutes. The total activity will take approximately 40-60 minutes.

Suggested prior learning:

- 1a Western Bay of Plenty sub-region – population change over time
 1b Population growth issues – why SmartGrowth?
 2a What makes a city a great place to live?
 2e Urban pattern – factors affecting where the new people live

Possible learning activities:

NOTE: This activity is suitable for a maximum of about 12-15 students. Teachers – we suggest you familiarise yourself with the Assumptions handout prior to running this activity with students.

Set up and preparation (10-20 minutes)

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Urban change and design – accommodating growing housing demand

Curriculum Level:

Level 6 / 7 / 8

Curriculum Links:**Social Science Achievement objectives**

7.2 Understand how people's perceptions of and interactions with natural and cultural environments differ and have changed over time

Curriculum:*Key competencies:*

Participating and contributing

Principles:

Future focus

Values:

Community and participation

Geographic Key Concepts:

Spatial patterns;
Interaction; Environments

Geographic skills:

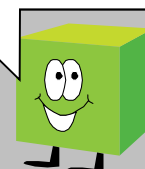
Communication skills, Map interpretation, Model construction

Assessment opportunities:

Geography Achievement Standards: 2.2, 1.6, 2.6, 3.6, 3.3

Sustainability tip!

Consider sustainability implications of the predicted population increase and your chosen location for facilities and housing



1. Create copies of the instruction sheet (next page). As a group, put the maps together so they produce a correct image of the western Bay of Plenty sub-region. This can be an interesting group exercise in itself! Spend time familiarising students with the key. Read the Giant SmartGrowth block and map game instruction sheet (following).

Play the game (20 – 30 minutes)

2. Use the instructions (following) to guide the activity. The overall aims of the game are (i) to locate housing space for the predicted increased future population for the sub-region to 2050, and (ii) to find suitable locations for industrial areas, regional parks and key facilities such as hospitals and airport.

Discussion

3. Discuss the following related to your decision making process:
 - How easy or hard was it to use up all the blue blocks (includes those with yellow and white spots)?
 - How and why did you decide where to replace a blue block with a red block to increase the density housing?
 - How did you decide where to put the industrial areas?
 - How did you decide where to put the regional parks?
 - What factors did you consider when placing the airport and the hospitals?
 - Did you all agree with the key decisions? How did you decide what to do when not everyone agreed?

And discuss the following planning related issues:

- Based on where you have placed the housing – what implications are there for the sub-regions transport network?
- How would you decide where to put the major roads?
- How can we prevent future traffic jams? What factors would you consider when working out where the future roading requirements will be?
- How do we solve the problem of limited land for building houses?
- What happens when we build on land that is unsuitable for good housing – examples are erosion, slips...

Additional resources / activities:

- Extend this activity by using toy cars and buses to try out different scenarios of where houses, industrial areas, airport, hospitals etc should go.
- Review the SmartGrowth Strategy (particularly section 6) to see how your plan and the SmartGrowth plan for where the houses will go are similar or different (or complete 2i Managing urban sprawl - 'intensification' of urban settlement).

- See the Ministry for the Environment. 2001. *People Places Spaces – A design Guide for Urban New Zealand*. MfE. Wellington. See PDF files.
- See the Ministry for the Environment. 2005. *Urban Design Case Studies*. MfE. Wellington (see PDF files).

Follow-on activities (found elsewhere in this resource):

- 2c History of urban settlement in the western Bay of Plenty sub-region
- 2g Changing urban settlement
- 2i Managing urban sprawl - 'intensification' of urban settlements
- 4a How natural and cultural geography inform our planning for growth