



Craft your Future - Learning Construction in Minecraft



Craft your Future is a lesson plan based on the computer game, Minecraft. In this custom built Minecraft world, students encounter a variety of problems that reflect construction challenges in cities today.

Practical information	
Subjects covered	Art and design, Design and technology, Geography
Year	5.-7. UK- Year's 7-9
Duration	4 chapters, 3 - 6 hrs each

Aims

- To spark interest and curiosity in a career in construction and building .
- To make students aware of how global challenges are countered in the local environment.
- To give students tools to take part in iterative work routines.
- To strengthen the students ability to work and think in a group.



Background

Across the world there is a surge in urban populations - the phenomena of urbanization. This creates a number of challenges for urban communities, and these are the problems that students will attempt to solve through their constructions.

The backdrop to this scenario is the city of Newtown, a fictitious urban environment undergoing redevelopment. In this setting, students enter as constructors, and must plan and create new urban landscapes to meet the needs of the growing population.

To set the scene, students explore the concepts of urbanization, communities and sustainability, to gain an understanding of the world they are building in. They must not only build to meet their own needs and interests, but create urban structures and spaces, that benefit many different groups of people.

Having gained an understanding of the issues they face as constructors, students enter a planning phase. Here they plan their builds using analog materials and tools, letting their ideas take form in an off game setting. After developing a common idea of what they will build, students present it to the class, who provide feedback and ideas for improvement.

Once the students have presented and implemented the groups suggestions, they bring it into Minecraft to develop it further. Here the plans are brought to life and students are encouraged to come up with more creative ideas and express them through the game.

21st Century Skills and Game Based Learning

Students work together in groups around planning and creating solutions in game. This is a skill that games in particular support well, since the culture around gaming is characterized by sharing information, collaboration and creativity. Studies show that digital games nurture the development of self confidence- and self esteem, because they are designed to constantly challenge gamers at the edge of their ability.

In this Minecraft scenario, students face construction challenges of increasing complexity, whilst letting them iterate on their plans, as they bring them to life in the game. This progress is only possible through a continuous cycle of trial and error. In return, the students will often experience the satisfaction of succeeding at a challenge, and this builds their self confidence.

The underlying mechanic of this game is the simple joy of seeing an idea come to life, which is one of the driving dynamics when players enter Minecraft in creative mode. The motivating factor behind the game is the game itself, and not the prospect of advancing in a reward system. This however, does not eliminate a teachers' role of motivating with other means, such as organizing each build as a competition.



Backstory

Newtown is a city that has emerged around its colossal coal driven power plant, which now has been closed and is in a state of stagnation. The city has found new ways to sustain itself after the powerplant has been dismantled and is now undergoing rapid expansion with the construction of new residential and commercial areas.

At the same time the old city is undergoing the restoration both buildings and urban spaces. The city has become an attractive location for a diverse cross section of the population, both because of work-, cultural- and recreational opportunities. This means that the urban spaces being developed are required to meet many different interests.

The new district plan has the general goal that the city must be a living city - 24 hours a day. To achieve this, the plan has the following requirements of all new constructions:

- They must be multifunctional.
- They must utilize all space optimally.
- They must activate and engage their surroundings.

[See the Craft Your Future trailer](#)