SDG13 Climate Change Engage Game Design

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Lesson 14: Housing Types, Density and Climate Change

Subjects: Design, Environmental Science, Game Design, Geography, Science, Technology

Lesson Title and Summary: Housing Types, Density and Climate Change.

In this lesson, learners will think about different types of housing, their varying densities and how sustainable these are. They will think about the various types of housing they are aware of and reflect on the positive and negative elements of these from a climate change perspective. This lesson focuses on different building types rather than overall settlement.

Vocabulary: Detached Housing; Duplex Apartments; Housing Density; Terraced Housing

In this lesson, the learner will:

- Identify different housing types that exist in their local area.
- Reflect on what they like and dislike about different housing types
- Think about the advantages and disadvantages of different housing types from a climate perspective.

Materials

- Flip chart paper
- Pens
- Pictures of various types of housing

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Activity Instructions

Activity 1 Dwellings/Housing in Their Locality (10 Minutes)

Before the lesson:

- *Ask learners to bring a photo of housing types from their local area, or to email images before the lesson.*
- *This could be any dwelling type e.g. a single house, new block of apartments, a terrace of houses in a town centre, an older block of flats in a suburb, a house on the edge of a town or in the countryside, a derelict house on a main street or village.*

1. In small groups, discuss the photos/images:
   - Where is it?
   - Why did you choose it?
   - Are these types of dwellings common in the area?

Activity 2 Thinking about Density (40 minutes)

1. Working in the same groups, divide a piece of flip chart/poster paper into 3 columns.
2. In the first column, learners write down all the different types of housing they know i.e. single detached houses on land in rural area; semi -detached houses, terraced houses, apartments, duplex units etc. (or provide them with pictures of these).
3. In the second column, ask learners to write down what they personally like and dislike about each dwelling type and think what it would be like to live in each example. Identify their preferences, for a dwelling type with a red dot · or red x in the list in column 1.
4. In the third column, learners identify the positives and negatives of the dwelling from a climate and sustainability perspective.
5. Put the flip-charts on the wall and identify the dwelling type that most learners prefer, draw out the reasons for their preferences, and ask learners to reflect on their preferences for a certain type of dwelling and the climate impacts of these dwellings.

REFLECTIVE EXERCISE: 3-2-1 (10 mins)

- Three things they feel they have learnt from the tasks
- Two things they found most interesting and would like to explore more
- One opinion they have about the activities, what did they like or how they would improve them

Use Post-its or a mentimeter survey - www.mentimeter.com to gather reflections

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EXTENSION / REDUCTION ACTIVITIES

Reduction: For a shorter lesson, skip Activity 1. Shorten Activity 2 by omitting point 3 (personal likes and dislikes), and focus more on climate positives and negatives.

Extension: For a longer lesson, learners can watch the RIBA video which looks at retrofitting older housing. This discusses the example of what are known as Tenement Flats in Glasgow (these are not what we might think of as Tenements in Ireland, they are publicly built flat complexes, that comprise much of the older housing in Glasgow). Learners can reflect on reusing and upgrading older Irish houses.

MEDIA BOX: (materials, online video links, extra resources, case studies etc)

RIBA Royal Institute British Architects (5:11mins) https://youtu.be/VGePpy_5C28

Kilbride Court, Coady Architects Home Performance Index (HPI) Gold Certification https://homeperformanceindex.ie/wicklows-social-housing-scheme-achieves-highest-green-home-certification/

Peter McVerry Trust Reusing Empty homes - https://pmvtrust.ie/housing/empty-homes/

The Rediscovery Centre is the National Centre for the Circular Economy in Ireland http://www.rediscoverycentre.ie/about-us/

Design for Reuse Primer https://issuu.com/publicarchitecture/docs/design_for_reuse_primer_issuu by Public Architecture https://issuu.com/publicarchitecture

Local Trip / Expertise / Additional Work and Assessments

Identify a recent housing development locally (apartments/housing estate/ renovation of older buildings) and reach out to the architects that worked on the project or planners in the local authority who might have dealt with the planning process.

A useful source of information is the planning application search on the relevant local authority website. This will give you access to the planning files for new or recent developments. If an architect is involved the company will be listed on the planning application. These professionals could explain and discuss the various issues that were considered in designing and planning the development. They will point out any sustainability considerations in the development.

An architect or planner in the local area could be approached to talk about different housing/dwelling types in the locality.