



## LESSON SERIES: WHAT TO KNOW ABOUT LIVING OFF-GRID

### BUILDING BLOCKS OF OFF-GRID LIVING

Age Range: 15-18

Lesson Plan: 1 of 4

#### **What is off-grid living?**

Off-grid living is a lifestyle that embraces self-sufficiency and sustainability. Some of the key building blocks that define off-grid homes include living independently of public utility services such as electricity, water and sewage.

Instead, off-grid homes and communities rely on alternative renewable energy sources and self-contained systems to meet daily needs of the household and often of the surrounding community. Those living off-grid tend to grow their own food and look to meet their needs locally as much as is possible, with a lighter footprint on mother earth.

#### **Importance of Local Materials**

Using materials from the local area is a key principle many apply in off-grid living. It cuts down on transportation costs and related environmental impact and ensures the building materials for the off-grid home are well-suited to the local climate.

Examples of local materials that are used both in the building and ongoing off-grid lifestyle include wood from nearby forests, stones from the area, or recycled materials found locally. Some communities also make use of the local earth to create floors or walls in off-grid homes. The closer to home the materials are sourced - the better.

Consideration should be provided to the local culture and traditional methods of taking care of the land, this will help build relationships with local Indigenous communities while helping to preserve local heritage.



## Climate Considerations and Local Rules

When planning an off-grid home, it's important to consider the local climate in all seasons and any potential extreme weather events common to the area, as well as any building rules that may apply to you living off-grid.

- **Climate Fit:** The home should be designed to align with the local climate. For example, homes in cold areas need good insulation and understanding of the frost line, while homes in warmer regions should have sufficient shade and optimal air flow.
- **Building Rules:** Local laws and by-laws may have specific rules for building off-grid homes, such as safety standards, back up energy systems and/or wastewater management. It's important to research these rules and talk to local experts to adequately plan for your off-grid lifestyle.

## Types of Off-Grid Homes

Off-grid homes come in many shapes and sizes, depending on personal choices, available resources and the environment, here are a few examples:

1. **Tiny Houses:** Small, often mobile homes that use minimal space and energy.
2. **Cabins:** Simple wooden structures, usually found in rural or forest areas.
3. **Earthships:** Homes made from natural and recycled materials, sometimes built into the earth - that are designed to be fully self-sufficient.
4. **Yurts:** Round tents that are easy to set up and take down, with simple building principles - a low cost option.
5. **Straw Bale Homes:** Houses made from straw bales, which provide great insulation and are suitable for colder climates such as North America.

## Conclusion

Living off-grid is a way to reduce your impact on the environment, live sustainably and be more self-sufficient. By learning about using local materials, adapting to the climate, and following local rules, people can successfully build and live in off-grid homes that fit their needs and values.