



Module 1 – Additional Information

The 12 Principles of Permaculture

1. Observe and interact

The first principle and the most important, arguably.

Permaculture isn't about jumping in and doing. It's about standing back and looking, really looking and not just about what you can immediately see. We need to learn to work with nature which means that we have to think about other things which are not immediately observable. In a new garden you are not immediately going to know the direction of the prevailing wind, for example, or if you live in a particularly windy spot. Whatever time of year you take on a garden new to you, it is unlikely that you will know everything that is going to grow at the different times of the year.

So although we may want to be getting on with doing, sometimes it is wiser to hold back, be patient and allow yourself time to learn and discover. Then when the time is right we can act. In acting though we never stop observing, constantly learning and adapting to additional information that becomes available to us. Remembering too that as permaculture is not just about gardening, we can apply all of these principles to different aspects of our lives.

2. Catch and store energy

So many ways to catch and store energy. There are the obvious ways as in solar panels and solar water heating systems. In the garden we use the energy of the sun to allow us to grow food crops. We look after our soil as it retains more water and so allows us to be more abundant in our yields.

Then there is the energy which is trapped in our food, both fresh and the food that we preserve to make the best of our abundance. Think of all the other ways that we can capture energy in our lives generally and in our gardens

3. Obtain a yield

The number of things that we can buy nowadays is mind-blowing. One whole aisle in the supermarket for breakfast cereal alone. So many homes with gardens which are mainly

grassed, some flowers and only a very few producing food. It has become so easy to just go to the shop.

Permaculture is about self-reliance and what better example is there than taking responsibility for producing food for our own consumption. In the time that we live in it makes sense not to rely completely on the existing system for getting food to each of us. We can all contribute in little ways, being creative even in the very smallest of places, whether it is window boxes with herbs and salads or volunteering on a community garden where you get to take some of the produce. Bearing in mind too that many plants can be used for more than just eating. Herbs for medicinal use and balms, trees for fuel, plants that can be made into fibres and dyes and not just functional. Think of the many creative ways that wood can be used to enhance your surroundings. Plates made from wood rarely break, are easy to clean and have so much character.

4. Apply self-regulation and accept feedback

We live in a world which has limited resources. Some of us have far more than we need while others have barely enough to sustain life. Those who try to live by the ethics of permaculture understand this and behave accordingly.

We can see this in operation in how we manage our gardens by trying to use the resources we have in place rather than need external inputs. This could be as simple as using comfrey to fix nitrogen in the soil rather than buying fertilisers, growing perennial plants and gathering and storing seeds for the next growing season. It also includes talking to one another sharing advice, seeds, some of our abundance both fresh and preserved.

5. Use and value renewable resources and services

As followers of permaculture, we want to promote the use of renewable sources of energy, among other things, and there is a more widespread understanding of the need for this. It does not however stop the destruction of natural ecosystems. However we can in our own small way ensure that we do not contribute to this destruction and that we understand the need to share. If we have access to a woodland area for example, we need to know how to harvest wood for energy without destroying it. We can leave some berries on the trees and bushes for the birds while foraging.

6. Produce no waste

Ultimately, we are looking to create a closed loop system in our garden. Not easy to do but something to work towards. We need to think differently about waste. A bit like weeds, we just need to change our thinking in relation to it. Kitchen waste is the obvious example where it composts down and we then use it to grow our food in. We can think of it more widely too though in terms of buying things to last, like the wood plates mentioned earlier.

They are not likely to break and all they need is a little bit of tung oil once in a while to keep the wood sealed. There is a growing community of people committed to reducing waste, finding ways to recycle and just buying less in the first place.

7. Design from patterns to details

Permaculture is a design system which shows us how we can work from a pattern (often inspired by nature) to help us achieve our goals. An example of this is 'zoning' which encourages you to look at a site and use the zones to determine how to make the set-up as efficient as possible.

An example is if you think of your house as being **zone zero** with a lot of upkeep and energy needs. The **zone one** you would think about all the things that you might want to have to hand more easily, for example a wood store, greenhouse, your herbs for cooking, etc. There can be up to five zones, **zone three** could be water storage, main crops, **zone four** could be a wooded area and finally **zone five** a wild zone where we can see nature doing its thing.

This is only one example though of how you can use patterns to inform your use of resources.

It is useful to look further, for example discovering the kind of soil that you have to work with, where you are. Finding out about local biodiversity. All these can help to inform decisions about what you do.

8. Integrate rather than segregate

The poet John Donne famously said a long time ago: 'No man is an island entire of itself' and that doesn't just go for us humans. A healthy ecosystem is made up of a large network of interconnections; so how do we replicate that in our lives, bearing in mind that we look to nature to learn.

Arguably a good example of how not to do it, is the mono crop-approach we see in farming. We want our gardens to be diverse: green and multi-coloured producing many different crops, inter-planted with companion plants and multi-layered. We have ponds to attract insects, newts and frogs, bird boxes and different kinds of feeders and nuts and seeds to attract different species. Gardens teeming with life and producing a largely self-regulating system whereby losses are minimised and yields abundant.

9. Use small and slow solutions

In permaculture, we want to keep it simple and easy and local. So right from the start, don't give yourself a hard-time. Use no-dig principles, don't take on too much too soon, to allow yourself, and nature, to see how it is working out and what needs changed or adapted. Think locally, so look to see what others are doing and what is working around you.

10. Use and value diversity

Diversity is more likely to result in abundance because we are working with nature and encouraging resilience in our (usually) small spaces by taking a polyculture-approach to growing. This ensures that we don't lose all our harvest in one go, in the way that a farmer can with the mono-crop approach. The more diversity in the plants that we grow results in very many more species of wildlife which help to provide balance in managing pests. We also need to have an acceptance that we will have to share with the wildlife. Sometimes we just don't get to those berries quick enough!

There is a growing acceptance that our societies benefit too from diversity in the workplace and in other communal spaces.

11. Use edges and value the marginal

In ecology this is called 'ecotone', that is, the place where two habitats meet and is generally richer and more productive. So if that is the case, we should try to create as much 'edge' as we can. A pond is a case in point. Think about it!

12. Creatively use and respond to change

In the garden, change comes with the seasons and we can respond to that with a degree of certainty. We might lose some plants, have smaller harvests of soft and top fruits for example but basically we have a good idea of what is likely to happen and can plan accordingly. Using the forest garden approach we can relatively quickly achieve a level of abundance. However the world we live in is fast-changing and not for the better when we think of the impact that we humans are having on the earth. However using permaculture ethics and principles we can learn to adapt and in our own small way improve our environment.