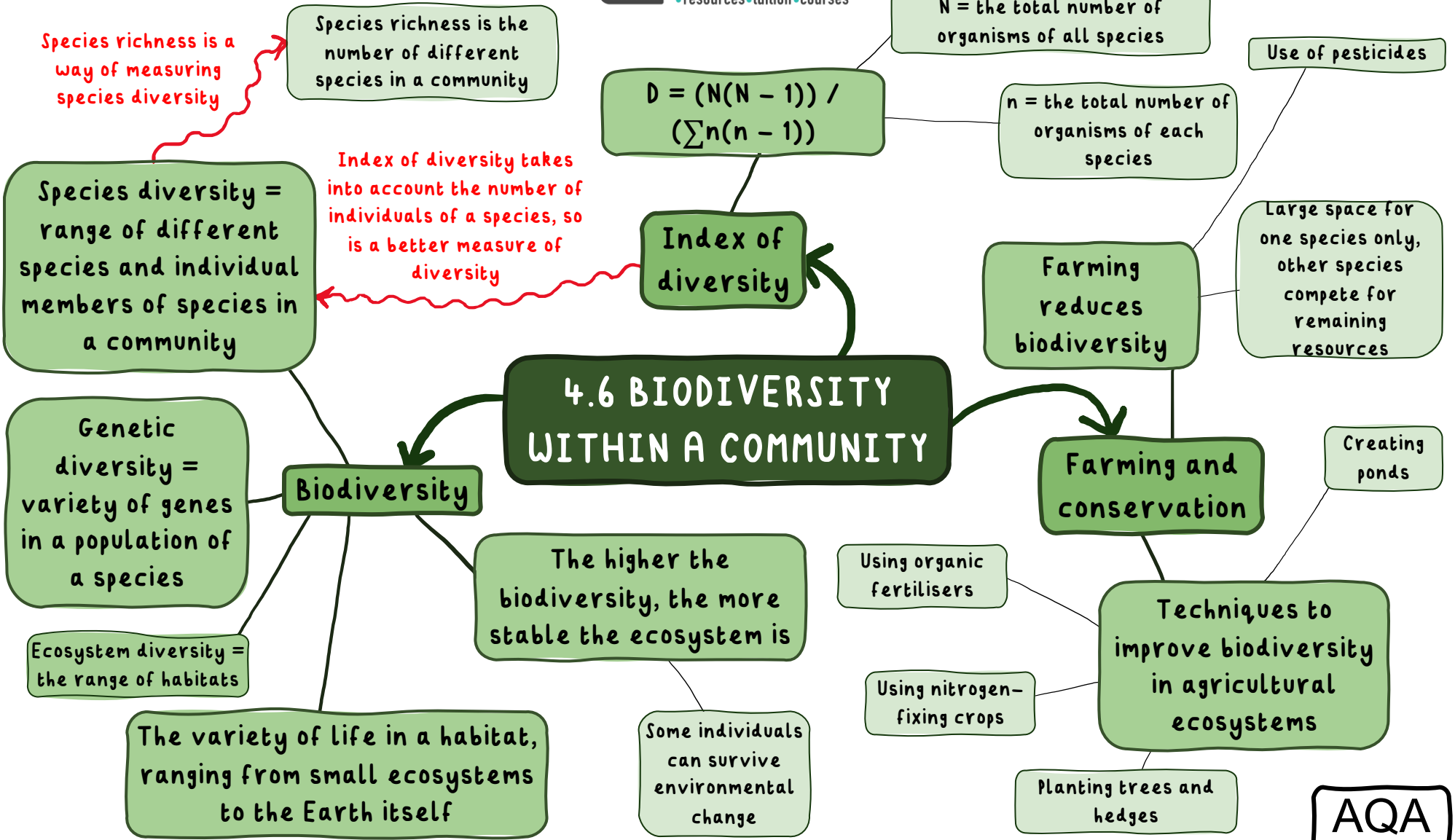


4.6 BIODIVERSITY WITHIN A COMMUNITY



Species richness is a way of measuring species diversity

Species richness is the number of different species in a community

Species diversity = range of different species and individual members of species in a community

Index of diversity takes into account the number of individuals of a species, so is a better measure of diversity

$$D = \frac{N(N - 1)}{\sum n(n - 1)}$$

N = the total number of organisms of all species

n = the total number of organisms of each species

Index of diversity

Farming reduces biodiversity

Use of pesticides

Large space for one species only, other species compete for remaining resources

Genetic diversity = variety of genes in a population of a species

Biodiversity

Ecosystem diversity = the range of habitats

The variety of life in a habitat, ranging from small ecosystems to the Earth itself

The higher the biodiversity, the more stable the ecosystem is

Some individuals can survive environmental change

Farming and conservation

Using organic fertilisers

Using nitrogen-fixing crops

Techniques to improve biodiversity in agricultural ecosystems

Planting trees and hedges

Creating ponds

AQA