

Blackline Master 2-1 SAMPLE RESPONSE KEY

Levels of Biodiversity

The word *biodiversity* comes from *biological diversity*. It refers to the diversity of living organisms and their interconnectedness.

The Canadian Biodiversity Strategy defined biodiversity as:

The variety of species and ecosystems on earth and the ecological processes of which they are a part – including ecosystem, species and genetic diversity. (Source: Taking Nature's Pulse p 5.)
Use this table to record information about the levels of biodiversity

	Genetic biodiversity	Species biodiversity	Ecosystem biodiversity
Facts and Ideas	<ul style="list-style-type: none"> - foundation of all biodiversity - toolkit for life - genes change to adapt to changes in environment - changes through natural selection - change through random mutations 	<ul style="list-style-type: none"> - species are units of genetic diversity - mate among themselves but not with others - species adapt to habitat through genetics - species are interdependent on other species 	<ul style="list-style-type: none"> - a unique community of many species interacting as one unit - made up of land, water, plants, animals and microorganisms - some regions have few ecosystems (low diversity) and some have higher diversity of ecosystems
Examples	<ul style="list-style-type: none"> -The white Spirit or Kermode bear is a genetic variation of the black bear 	<ul style="list-style-type: none"> - The coastal wolf is a genetically distinct subspecies of the grey wolf - The woodland caribou is a subspecies of caribou 	<ul style="list-style-type: none"> - A watershed can have a high diversity of ecosystems e.g. alpine, forest, river, grasslands, estuary
Questions	<ul style="list-style-type: none"> - Why is genetic diversity called the tool kit for life? - Why is genetic diversity important for survival? - How might genetic biodiversity react to climate change? 	<ul style="list-style-type: none"> - What causes a new species to develop? - Why is it important to have species diversity? - What could happen if one species disappeared? 	<ul style="list-style-type: none"> - How high or low is the ecosystem biodiversity in our region?