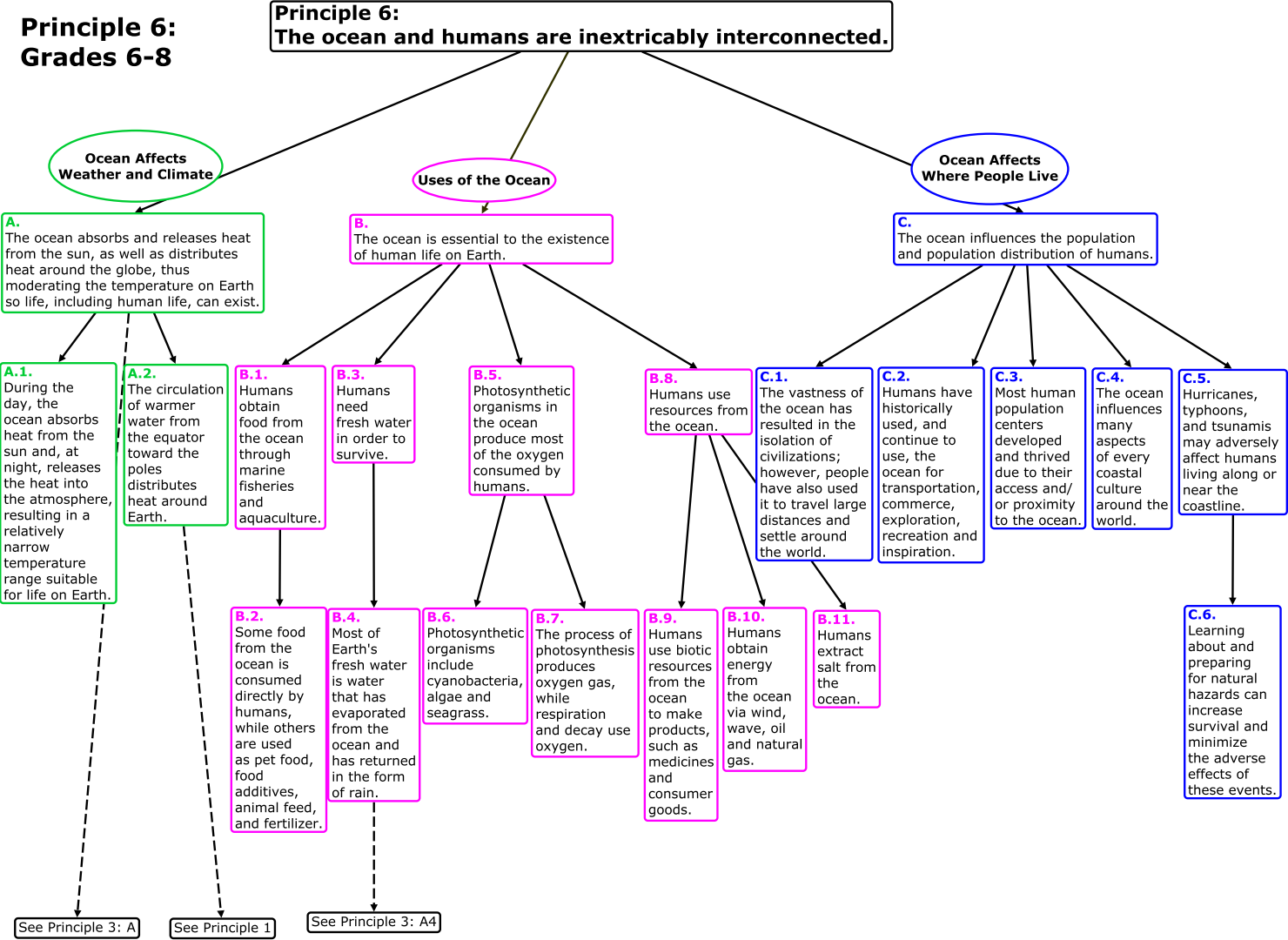
Principle 6:
Grades 6-8
Principle 6:
The ocean and humans are inextricably interconnected.
Ocean Affects Weather and Climate
Uses of the Ocean
Ocean Affects Where People Live
A.
The ocean absorbs and releases heat from the sun, as well as distributes heat around the globe, thus moderating the temperature on Earth so life, including human life, can exist.
B.
The ocean is essential to the existence of human life on Earth.
C.
The ocean influences the population and population distribution of humans.
A.1.
During the day, the ocean absorbs heat from the sun and, at night, releases the heat into the atmosphere, resulting in a relatively narrow temperature range suitable for life on Earth.
A.2.
The circulation of warmer water from the equator toward the poles distributes heat around Earth.
B.1.
Humans obtain food from the ocean through marine fisheries and aquaculture.
B.3.
Humans need fresh water in order to survive.
B.5.
Photosynthetic organisms in the ocean produce most of the oxygen consumed by humans.
B.8.
Humans use resources from the ocean.
C.1.
The vastness of the ocean has resulted in the isolation of civilizations; however, people have also used it to travel large distances and settle around the world.
C.2.
Humans have historically used, and continue to use, the ocean for transportation, commerce, exploration, recreation and inspiration.
C.3.
Most human population centers developed and thrived due to their access and/or proximity to the ocean.
C.4.
The ocean influences many aspects of every coastal culture around the world.
C.5.
Hurricanes, typhoons, and tsunamis may adversely affect humans living along or near the coastline.
B.2.
Some food from the ocean is consumed directly by humans, while others are used as pet food, food additives, animal feed, and fertilizer.
B.4.
Most of Earth's fresh water is water that has evaporated from the ocean and has returned in the form of rain.
B.6.
Photosynthetic organisms include cyanobacteria, algae and seagrass.
B.7.
The process of photosynthesis produces oxygen gas, while respiration and decay use oxygen.
B.9.
Humans use biotic resources from the ocean to make products, such as medicines and consumer goods.
B.10.
Humans obtain energy from the ocean via wind, wave, oil and natural gas.
B.11.
Humans extract salt from the ocean.
C.6.
Learning about and preparing for natural hazards can increase survival and minimize the adverse effects of these events.
See Principle 3: A
See Principle 1
See Principle 3: A4