
AP Environmental Science

Name: _____ Score: _____

1. A species' **niche** is...
 - ☐ its number of offspring
 - ☐ its colour
 - ☐ its role and the range of resources it uses
 - ☐ the exact spot where it sleeps
2. An **r-selected** species tends to...
 - ☐ live for centuries
 - ☐ produce few offspring with much care
 - ☐ never reproduce
 - ☐ produce many offspring with little parental care
3. A **survivorship curve** shows...
 - ☐ the size of an animal
 - ☐ the weather over a year
 - ☐ the colour of a species
 - ☐ how many of a group survive to each age
4. The **carrying capacity** of an environment is...
 - ☐ the largest population it can support long-term
 - ☐ the size of the area
 - ☐ the number of species
 - ☐ the total rainfall
5. With **unlimited** resources, a population grows...
 - ☐ not at all
 - ☐ exponentially, faster and faster (a J-curve)
 - ☐ in a straight line
 - ☐ downward
6. A narrow base, with few children and many elderly, predicts a _____ population.

7. A TFR below 2.1 means the population will slowly _____.

8. The time it takes a population to double in size is its _____ time.

9. In the final stage, both birth and death rates are _____, so the population is roughly stable.

10. A species with a narrow niche, using very few resources, is a _____.

1. **its role and the range of resources it uses**

A **niche** is a species' role – what it eats, where it lives, and the conditions it needs.

2. **produce many offspring with little parental care**

r-selected species have many offspring quickly and give little care – most young die, but some survive.

3. **how many of a group survive to each age**

A **survivorship curve** plots how many individuals of a group are still alive at each age.

4. **the largest population it can support long-term**

The **carrying capacity** (K) is the maximum population an environment can sustain with its resources.

5. **exponentially, faster and faster (a J-curve)**

With no limits, growth is **exponential** – a J-shaped curve that gets ever steeper.

6. **shrinking**

Few young people means few future parents, so the population will **shrink**.

7. **shrink**

Below the replacement level, each generation is smaller, so the population **shrinks**.

8. **doubling**

Doubling time $\approx 70 \div$ (growth rate in percent) – even a small rate doubles a population over time.

9. **low**

By **Stage 4**, both rates are low, so a developed country's population is large but stable.

10. **specialist**

A **specialist** uses a narrow set of resources – like a panda that eats almost only bamboo.