

## Survival Strategies Cards

<p><b>Lifespan: 7 years</b>            Offspring per litter: 6            Gestation: 19 days            Duration of parenting: 2-3 months            Sexual maturity: 2.5 yrs.            Sexual reproduction only            Specialist            Stable population</p>	<p><b>Lifespan: 4 years</b>            Offspring per litter: 15            Gestation: 1 month            Duration of parenting: none            Sexual maturity: 1 month            Asex./sexual reproduct.            Generalist            Irruptive population</p>	<p><b>Lifespan: 15 years</b>            Offspring per litter: 6            Gestation: 62 days            Duration of parenting: minimum 1 year            Sexual maturity: 1.5 yrs.            Sexual reproduction only            Generalist            Irruptive population</p>	<p><b>Lifespan:</b>            Offspring per litter:            Gestation:            Duration of parenting:            Sexual maturity:            Sexual reproduction only            Generalist            Irruptive population change curve</p>
<p><b>Lifespan: 15 years</b>            Offspring per litter: 2            Gestation: 30 days            Duration of parenting: 3-4 months            Sexual maturity: 3 years            Sexual reproduction only            Specialist            Stable population</p>	<p><b>Lifespan: 30 years</b>            Offspring per litter: 15            Gestation: 90 days            Duration of parenting: none            Sexual maturity: 2 years            Only sexual reproduct.            Specialist            Stable population change curve</p>	<p><b>Lifespan: 2 years</b>            Offspring per litter: 3            Gestation: 32 days            Duration of parenting: 1 month            Sexual maturity: 3 mos.            Sexual reproduction only            Generalist            Irruptive population</p>	<p><b>Lifespan:</b>            Offspring per litter:            Gestation:            Duration of parenting:            Sexual maturity:            Sexual reproduction only            Generalist            Irruptive population change curve</p>
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<b>Make your own card:</b>	<b>Coyote</b>	<b>Whiptail lizard</b>	<b>Roadrunner</b>
<b>Make your own card:</b>	<b>Kangaroo mouse</b>	<b>Western rattlesnake</b>	<b>Red-tailed hawk</b>
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# Survival Strategies Card Game

## Reflection Questions

1. Asexual reproduction tends to be found more often in r-selected species. Give two scientific explanations for this correlation.
  - a.
  - b.
2. Long-term parenting is often a trait of K-selected species. What is the evolutionary purpose of this characteristic?
3. Describe one evolutionary advantage and one disadvantage of precocious young.

Advantage:

Disadvantage:
4. Most species with stable population curves are K-selected. Give one scientific reason an r-selected species might have a stable population.
5. What correlations do you see between population change curves and r- or K-selection?
6. Describe one evolutionary advantage and one disadvantage of being a specialist.

Advantage:

Disadvantage:
7. Are humans an r- or K-selected species? Provide three supporting details for your answer.

## Live for Today Life Table

The following figures reflect the projected life expectancy for various species and the percentage of the birth group that survives to each stage at each listed age. Graph the following data points on a single graph using a different color line for each species. Use "Lifespan" as the independent axis and 0.0-1.0 for the range so that all species can be compared equally, regardless of their life expectancy. Some information is just for background purposes and does not need to be graphed. Be sure that your graph contains all of the features of an excellent, scientifically accurate graph.

Species:	Black Phoebe	Mountain Gorilla	Southern Toad
Number in cohort group at birth:	3-6 eggs	1 young	30,000 eggs
Life expectancy	10 years	50 years	15 years
Time:	% of survivors:	% of survivors:	% of survivors:
0.0 of lifespan	1.00	1.00	1.00
0.1 of lifespan	0.95	0.999	0.1
0.2 of lifespan	0.85	0.999	0.01
0.3 of lifespan	0.75	0.997	0.001
0.4 of lifespan	0.65	0.985	0.001
0.5 of lifespan	0.55	0.980	0.001
0.6 of lifespan	0.45	0.95	0.001
0.7 of lifespan	0.35	0.93	0.001
0.8 of lifespan	0.25	0.82	0.0006
0.9 of lifespan	0.15	0.65	0.0004
1.0 of lifespan	0.00	0.00	0.00

### Reflection Questions:

- Which species has a late-loss curve? \_\_\_\_\_ An early-loss curve? \_\_\_\_\_ A constant-loss curve? \_\_\_\_\_
- K-selected species tend to reach sexual maturity late in life, which might put them at risk for dying before they get a chance to reproduce. However, most offspring survive to reproduction age. Explain why this is so.
- Consider a species of organisms that molts three times in its lifespan. Draw a line to represent this species and label it "molting species."
- Name a species from your local area that you are familiar with: \_\_\_\_\_. Describe the survivorship curve for this species using the correct terminology.