

The Diversity of Living Things
In the Year 2525

The Background

Humans, after centuries of constant effort, irreparably damaged or contaminated all ecosystems on Earth. As a result, humans had to flee Earth and take refuge on new planets around new stars. Since humanity left, all known species of life (plants, animals or other) have evolved into new, very different forms due to the pollution left behind.

The Assignment

As a famous taxonomist at the Alpha Centauri University of Life Sciences, you have been granted permission to return to Earth and classify all the new creatures that have evolved since humanity travelled into the cosmos.

- 1) Create 9 new species. Be as creative as possible. Mix the Kingdoms.
 - a) The descriptions do not need to be very detailed; simply provide a written outline and a sketch/diagram of each.
- 2) Create a taxonomic scheme using only kingdom, phylum, genus, and species.
 - a) The intermediate categories have been eliminated since the total number of species has been drastically reduced.
 - b) Two Kingdoms are recommended.
 - c) Create common *and* scientific (binomial) names for each organism.
- 3) Prepare a dichotomous key for each organism so that your fellow aliens can identify them when they come to Earth for their summer vacations. Remember that a dichotomous key is based on the APPEARANCE of the organisms.
 - a) Use your drawings as a basis for the key
- 4) Create a cladogram for these 10 organisms.

Due: _____

Taxonomy
In the Year 2525

Name(s): _____

The Creatures

<i>Pictures</i>	No pictures provided	Few pictures			Some pictures			Most pictures			All pictures provided		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+
<i>Depiction</i>	Inaccurate depictions	Depictions poor			Depictions adequate			Depictions clear			Depictions exceptional		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+
<i>Descriptions</i>	No descriptions	Descriptions vague			Descriptions unclear			Descriptions complete			Descriptions engaging		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+

Taxonomic Scheme

<i>Organization</i>	No organization	Inconsistent organization			Gaps in organization			Consistent organization			Refined organization		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+
<i>Conventions</i>	No conventions	Few conventions			Some conventions			Most conventions			All conventions		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+
<i>Binomial Names</i>	No binomial naming	Few binomial			Some binomial			Most binomial			All binomial		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+

Dichotomous Key

<i>Conventions</i>	No conventions	Few conventions			Some conventions			Most conventions			All conventions		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+
<i>Accuracy</i>	No accuracy	Little accuracy			Some accuracy			Mostly accurate			Completely accurate		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+

Cladogram

<i>Conventions</i>	No conventions	Few conventions			Some conventions			Most conventions			All conventions		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+
<i>Accuracy</i>	No accuracy	Little accuracy			Some accuracy			Mostly accurate			Completely accurate		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+
<i>Appearance</i>	Slapdash appearance	Messy appearance			Untidy appearance			Clean appearance			Professional appearance		
Mark:	NR	1-	1	1+	2-	2	2+	3-	3	3+	4-	4	4+

Totals					
	Creatures	Taxonomy	Key	Cladogram	Overall