Supplemental Table S2

Open-Ended Codes: All Biological Terms, Informed and Intuitive Reasoning Concepts Used When Coding Participants' Responses

Biological Terms	Example
Adaptation	"It's the one that has more chance of survival…that makes evolution and adaptation."
Ancestry	"A long time ago, they were common ancestors to us."
*Barriers	"One species spread out into more and more species because of the barriers"
Branches	"I would tell them that every species splits and branches."
Evolution	"…species evolve over time."
Genes	"…maybe because that they have the same, a couple of the same genes."
Human	"It traces all animals and humans from like bacteria cells to what we are today."
*Mutation	"A mutation caused them to be different."
*Population	"It's the one who has more chance to survive, that in the population, that makes the evolution, and adaptation."
Relate	"A tree of how everyone relates."
Separate	"…everything got separated, and they all went in their different directions"
Time	"It's how creatures changed over time." And "the act of evolving over time."

Informed Reasoning	Example
Branching Patterns	"I would say it's probably about evolution, going off to the different branches of human race and animals."
Common Descent	"…humans, gorillas, orangutans and chimpanzees evolved from these same type of ape-like creatures a long, long time ago."
Differential Reproduction	"The ones that survived reproduced faster and had more population."
Differential Survival	"It's the one who has more chance to survive, that in the population, that's make the evolution, and adaptation."
Environmental Pressures	"Each different species adapted to its environment, and like, became different in some way, from its like ancestors…"
Inheritance	"Those that had larger beaks were favored by the environment, so they were able to eat, breed, and then their offspring continued to do the same."
Shared Traits	"They all have these characteristics of hair, amniotic sac, backbones…"
Taxonomic Relationships	"Because dolphins are mammals […] meaning that they'll be closely related."

Intuitive Reasoning	Example
*Adaptive Environment	"The squirrels with the white stripes stick out more so they had to hide…and the darker squirrels had to hide where there's less sun light so they got darker."
Connectedness	"It shows the connection between them."
Creationist Explanations	"…I think originally that God made the world and he put all these different" kinds of animals on it to make it beautiful and also to help them live."
*Design-Based Reasoning	"Somebody made them that way." (Design, but NOT creationist)
*Features	"The things that lived under water developed like fins and different ways to breathe"
*Hybridization	"There is probably a little mixture and they probably both started changing a tiny bit"
Need-Based Reasoning	"Because each of them had their own specific need to live in a different environment, so they adapted to what they needed from the environment."
*Reproduction	"They could easily breed and populate."
*Want-Based Reasoning	"…they wanted to live on the sand, probably (Desire)"

* used in 1% or fewer of the responses