

## **Anchoring Phenomenon: What happens when a newborn cannot process their food?**

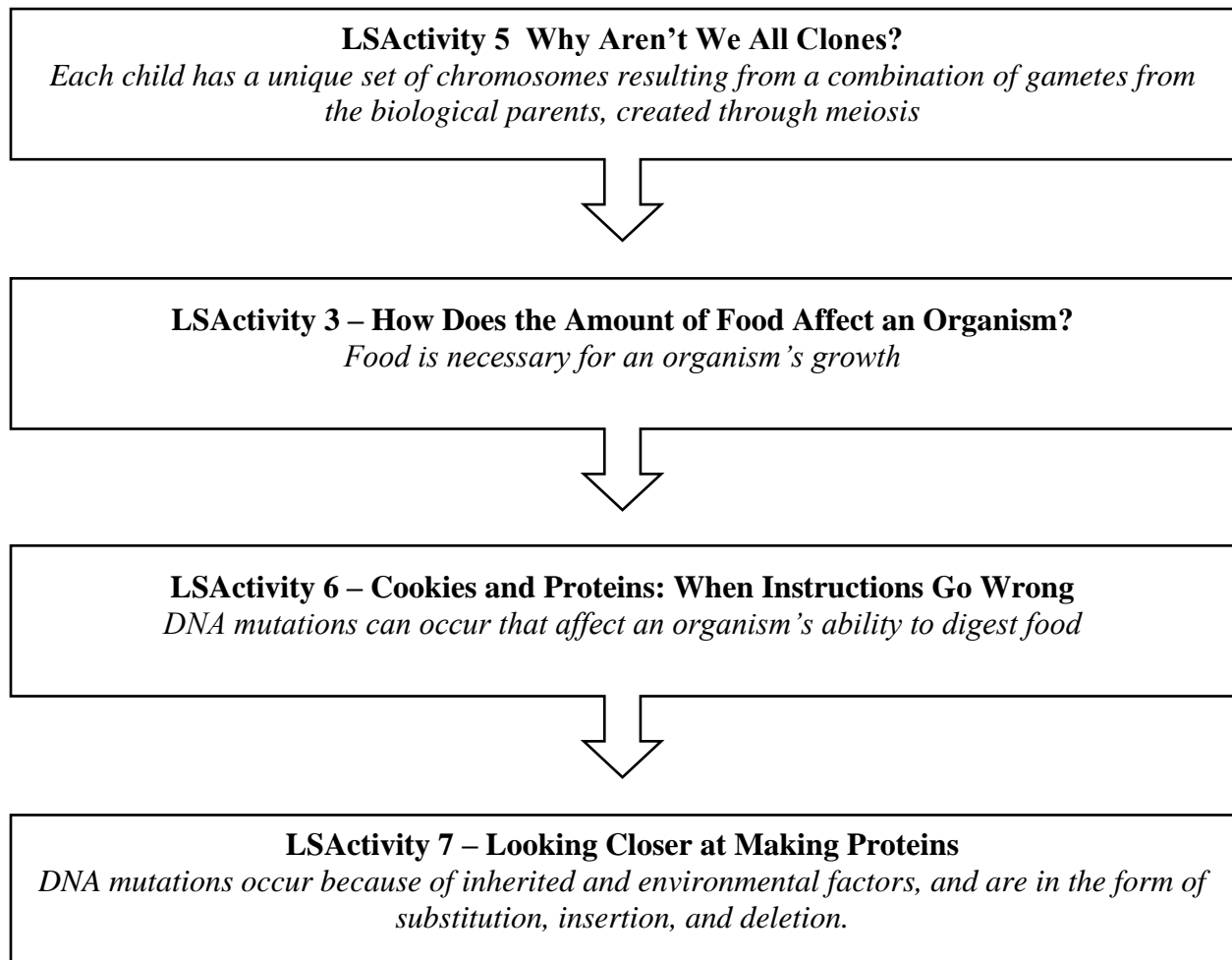
How are genetic diseases caused?

Video Supplement: Child with metabolic disorder (galactosemia)  
<https://www.youtube.com/watch?v=Q7oEz6pmhPA>



B. D. Ferguson  
@ 6 hours old

POGIL<sup>®</sup> Activities that support the anchoring phenomenon:



<b>POGIL® Activity</b>	<b>NGSS Performance Expectation</b>	<b>Learning Outcomes</b>
LSActivity 5	<p><b>MS-LS3-2</b> Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.</p>	<p>1. I can identify similarities and differences between the process of mitosis and the process of meiosis.</p> <p>2. I can explain why a baby animal’s chromosomes are not exactly the same as its mother’s or its father’s chromosomes</p>
LSActivity 3	<p><b>MS-LS1-5, MS-LS2-1</b> Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.</p>	<p>1. I can analyze and interpret data from tables, drawings, and simple equations to create graphs and ratios as evidence for the effects of food availability on the growth and development of organisms.</p> <p>2. I can construct a scientific explanation based on evidence to describe how the availability of food during early developmental stages influences the growth and development of organisms.</p>
LSActivity 6	<p><b>MS-LS3-1</b> Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.</p>	<p>1. I can describe three different ways that DNA mutations can impact the function of protein molecules.</p> <p>2. Using information about the structure and function of an unmutated protein molecule, I can predict how a specific mutation will impact that protein’s function.</p>
LSActivity 7	<p><b>MS-LS3-1,</b> Develop and use a model to describe why structural changes to genes (mutations) located on</p>	<p>1. I can describe the basic process of how a protein molecule is made in our cells.</p>

	<p>chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.</p> <p><b>HS-LS1-1</b> Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins, which carry out the essential functions of life through systems of specialized cells.</p>	<p>2. I can identify and name three different types of mutations that occur in strands of DNA.</p>
--	--	--