		DNAi: History of DNA	4	
Click on "early 50's" to	begin your journey.	Click on the animated	icon to the left of Wats	son and Crick.
Watson and Crick and	the Double Helix: P	art 1		
What year was the first	t model of DNA accu	rately published?		
Who created the first r	nodel of DNA?			
What is the function of				
DNA is made up of building blocks called				
		linked to a		
The Four Nitrogenous I	Bases:			
	/	, Draw	Draw 1 nucleotide with a nitrogenous base of your choice.	
		your		
Skin forward to Erwin (Charaaff to complete	this payt saction		
	Chargaff to complete	this next section.		
Chargaff's Ratios				
Chargaff's Ratios			red the levels of each	nitrogenous base:
Chargaff's Ratios			red the levels of each	nitrogenous base: CYTOSINE
Chargaff's Ratios Erwin Chargaff isolated	I DNA from different	organisms and measu		
Chargaff's Ratios Erwin Chargaff isolated DNA SOURCE	I DNA from different	organisms and measu	GUANINE	CYTOSINE
Chargaff's Ratios Erwin Chargaff isolated DNA SOURCE Calf Thymus	I DNA from different ADENINE 1.7	organisms and measu THYMINE 1.6	GUANINE 1.2	CYTOSINE 1.0
Chargaff's Ratios Erwin Chargaff isolated DNA SOURCE Calf Thymus Beef Spleen	I DNA from different ADENINE 1.7 1.6	THYMINE 1.6 1.5	GUANINE 1.2 1.3	CYTOSINE 1.0 1.0
Chargaff's Ratios Erwin Chargaff isolated DNA SOURCE Calf Thymus Beef Spleen Yeast Tubercle Bacillus	ADENINE 1.7 1.6 1.8 1.1	THYMINE 1.6 1.5 1.9 1.0	1.2 1.3 1.0	1.0 1.0 1.0 2.4
Chargaff's Ratios Erwin Chargaff isolated DNA SOURCE Calf Thymus Beef Spleen Yeast Tubercle Bacillus What did he notice abo	ADENINE 1.7 1.6 1.8 1.1	THYMINE 1.6 1.5 1.9 1.0 nine and What	GUANINE 1.2 1.3 1.0 2.6 did he notice about th	1.0 1.0 1.0 2.4
Chargaff's Ratios Erwin Chargaff isolated DNA SOURCE Calf Thymus Beef Spleen Yeast Tubercle Bacillus What did he notice abo	ADENINE 1.7 1.6 1.8 1.1	THYMINE 1.6 1.5 1.9 1.0 nine and What	1.2 1.3 1.0 2.6	1.0 1.0 1.0 2.4
Chargaff's Ratios Erwin Chargaff isolated DNA SOURCE Calf Thymus Beef Spleen Yeast Tubercle Bacillus What did he notice about	ADENINE 1.7 1.6 1.8 1.1 but the levels of Ade	THYMINE 1.6 1.5 1.9 1.0 nine and What and Cy	GUANINE 1.2 1.3 1.0 2.6 did he notice about th	CYTOSINE 1.0 1.0 1.0 2.4 e levels of Guanine
Chargaff's Ratios Erwin Chargaff isolated DNA SOURCE Calf Thymus Beef Spleen Yeast Tubercle Bacillus What did he notice about	ADENINE 1.7 1.6 1.8 1.1 but the levels of Ade	THYMINE 1.6 1.5 1.9 1.0 nine and What and Cy	GUANINE 1.2 1.3 1.0 2.6 did he notice about th	CYTOSINE 1.0 1.0 1.0 2.4 e levels of Guanine
Chargaff's Ratios Erwin Chargaff isolated DNA SOURCE Calf Thymus Beef Spleen Yeast Tubercle Bacillus What did he notice abo Thymine? This told Watson and Company is a second company in the company in the company is a second company in the company in the company is a second company in the company in the company is a second company in the company in the company is a second company in the company in the company is a second company in the com	ADENINE 1.7 1.6 1.8 1.1 Dut the levels of Ade	THYMINE 1.6 1.5 1.9 1.0 nine and What and Cy	GUANINE 1.2 1.3 1.0 2.6 did he notice about th ytosine? of adenine (A) must e	CYTOSINE 1.0 1.0 2.4 e levels of Guanine qual the amount of
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Calf Thymus Beef Spleen Yeast Tubercle Bacillus What did he notice abo Thymine? This told Watson and C	ADENINE 1.7 1.6 1.8 1.1 Dut the levels of Ade	THYMINE 1.6 1.5 1.9 1.0 nine and What and Cymposite with of cytosine (C) must	GUANINE 1.2 1.3 1.0 2.6 did he notice about the ytosine? of adenine (A) must expected the amount of	CYTOSINE 1.0 1.0 2.4 e levels of Guanine qual the amount of

What is the name of the scientist who famously made Photo 51?)			
Franklin concentrated on the X-ray data from this form of DNA and was able to calculate the basic dimensions of the This	Make a sketch of Photo 51			
information was used to eventually solve the 3-dimensional structure of DNA.				
The X-ray diffraction pattern in Photo 51 showed that DNA shou groups on the outside and the Skip the information on Linus Pauling's triple helix model Nucleotide pairs and form weak bonds called:	on the inside.			
Regroup the nitrogenous bases to their correct pairs.				
DNA is like a twisted ladder where the and	are the rails			
and the are the run	are the rungs. The rails run in			
orientation to each other. The nucleotide rungs are	to each other. Wherever			
there is an A on one strand, there is a in the same position				
wherever there is a on one strand, there is a C in the same on the other strand.				
Sketch the DNA molecule. Label the sugar-phosphate rails and t	the complimentary nitrogenous base rungs.			