1	Myers' Psychology for AP*		
2	Unit 3C: Biological Bases of Behavior: Genetics, Evolutionary Psycholog	gy, and Behavior	
3	Unit Overview		
	 Behavior Genetics: Predicting Indiv Evolutionary Psychology: Under Nature 		
	Reflections on Nature and	<u>Nurture</u>	
4	Behavior Genetics: Predicting Individual Differences		
5	Introduction		
6	 Behavior genetics Heredity versus the environment Genes: Our Codes for Life 		
	 Chromosome DNA (deoxyribonucleic acid) Genes	vs. inactive	
7	Twin and Adoption Studies Identical Versus Fraternal Twins Identical twins Fraternal twins		
8	Twin and Adoption Studies Identical Versus Fraternal Twins		
9	Twin and Adoption Studies Identical Versus Fraternal Twins		
10	Twin and Adoption Studies		

Identical Versus Fraternal Twins 11 Twin and Adoption Studies Identical Versus Fraternal Twins 12 Twin and Adoption Studies Identical Versus Fraternal Twins 13 Twin and Adoption Studies Identical Versus Fraternal Twins 14 | Twin and Adoption Studies Separated Twins U of MN studies on identical twins separated at birth Anecdotal evidence · "Virtual twins" 15 Twin and Adoption Studies Biological Versus Adoptive Relatives Genetic relatives Environmental relatives 16 Heritability Heritability -"difference among people" 17 Heritability **Group Differences** Heritable differences between individuals does not imply heritable group differences 18 Heritability Nature and Nurture Influence of adaptation · Nature and nurture work together Genes are self-regulating 19 Gene-Environment Interaction

- Genes and experience interact
 - -Evocative interactions
- 20 The New Frontier: Molecular Genetics
 - Molecular genetics
 - -Molecular behavior genetics
 - -Genetics and diseases
- 21 Evolutionary Psychology: Understanding Human Nature
- 22 Natural Selection and Adaptation
 - Evolutionary psychology
 - -Natural selection
 - Mutation
 - Adaptation
 - Fitness
- 23 Evolutionary Success Helps Explain Similarities
 - Behaviors that contribute to survival are found throughout cultures
- 24 Evolutionary Success Helps Explain Similarities
 Outdated Tendencies
 - Genetic traits which helped our ancestors survive may harm us today
- 25 Evolutionary Success Helps Explain Similarities Evolutionary Psychology Today
 - "the Second Darwinian Revolution"
- 26 An Evolutionary Explanation of Human Sexuality Gender Differences in Sexuality
 - Studies suggesting men have a stronger tendency towards sex
- 27 An Evolutionary Explanation of Human Sexuality Natural Selection and Mating Preferences

- Differing preferences in partners
 - -Male preferences
 - -Female preferences

28 Critiquing the Evolutionary Perspective

- · Backward theorizing
- Impact of social influence

29 Reflections on Nature and Nurture

30 The End

31 Teacher Information

- Types of Files
 - -This presentation has been saved as a "basic" Powerpoint file. While this file format placed a few limitations on the presentation, it insured the file would be compatible with the many versions of Powerpoint teachers use. To add functionality to the presentation, teachers may want to save the file for their specific version of Powerpoint.

Animation

- -Once again, to insure compatibility with all versions of Powerpoint, none of the slides are animated. To increase student interest, it is suggested teachers animate the slides wherever possible.
- · Adding slides to this presentation
 - -Teachers are encouraged to adapt this presentation to their personal teaching style. To help keep a sense of continuity, blank slides which can be copied and pasted to a specific location in the presentation follow this "Teacher Information" section.

32 Teacher Information

- Hyperlink Slides This presentation contain two types of hyperlinks. Hyperlinks can be identified by the text being underlined and a different color (usually purple).
 - –Unit subsections hyperlinks: Immediately after the unit title slide, a page (slide #3) can be found listing all of the unit's

subsections. While in slide show mode, clicking on any of these hyperlinks will take the user directly to the beginning of that subsection. This allows teachers quick access to each subsection.

-Bold print term hyperlinks: Every bold print term from the unit is included in this presentation as a hyperlink. While in slide show mode, clicking on any of the hyperlinks will take the user to a slide containing the formal definition of the term. Clicking on the "arrow" in the bottom left corner of the definition slide will take the user back to the original point in the presentation.

These hyperlinks were included for teachers who want students to see or copy down the exact definition as stated in the text. Most teachers prefer the definitions not be included to prevent students from only "copying down what is on the screen" and not actively listening to the presentation.

For teachers who continually use the Bold Print Term Hyperlinks option, please contact the author using the email address on the next slide to learn a technique to expedite the returning to the original point in the presentation.

33 Teacher Information

- Continuity slides
 - -Throughout this presentation there are slides, usually of graphics or tables, that build on one another. These are included for three purposes.
 - •By presenting information in small chunks, students will find it easier to process and remember the concepts.
 - By continually changing slides, students will stay interested in the presentation.
 - To facilitate class discussion and critical thinking.
 Students should be encouraged to think about "what might come next" in the series of slides.
- Please feel free to contact me at

kkorek@germantown.k12.wi.us with any questions, concerns, suggestions, etc. regarding these presentations.

Kent Korek

Germantown High School

Germantown, WI 53022

262-253-3400

kkorek@germantown.k12.wi.us

- 34 Division title (green print) subdivision title (blue print)
 - XXX
 - -xxx
 - -xxx
- Division title (green print) subdivision title (blue print)
- 36 Definition Slide
 - = add definition here
- 37 Definition Slides
- 38 Behavior genetics
 - = the study of the relative power and limits of genetic and environmental influences on behavior.
- 39 Environment
 - = every non-genetic influence, from prenatal nutrition to the people and things around us.
- 40 Chromosomes
 - = threadlike structures made of DNA molecules that contain the genes.
- 41 DNA (deoxyribonucleic acid)
 - = a complex molecule containing the genetic information that makes up the chromosomes.
- 42 Genes

= the biochemical units of heredity that make up the chromosomes; segments of DNA capable of synthesizing a protein.

43 Genome

= the complete instructions for making an organism, consisting of all the genetic material in that organism's chromosomes.

44 Identical Twins

= twins who develop from a single fertilized egg that splits in two, creating two genetically identical organisms.

45 Fraternal Twins

= twins who develop from separate fertilized eggs. They are genetically no closer than brothers and sisters, but they share a fetal environment.

46 Heritability

= the proportion of variation among individuals that we can attribute to genes. The heritability of a trait may vary, depending on the range of populations and environments studied.

47 Interaction

= the interplay that occurs when the effect of one factor (such as environment) depends on another factor (such as heredity).

48 Molecular Genetics

= the subfield of biology that studies the molecular structure and function of genes.

49 Evolutionary Psychology

= the study of the evolution of behavior and the mind, using principles of natural selection.

50 Natural Selection

= the principle that, among the range of inherited trait variations, those that lead to increased reproduction and survival will most likely be passed on to succeeding generations.

51 Mutation

= the random error in gene replication that leads to a change.