AP Biology – Ms. BakerC:\Users\Bakerm\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\PGCMFMM2\MC900239669[1].wmf

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AP VIRTUAL LAB – PRACTICE ACTIVITY

**POLYMERASE CHAIN REACTION**

Introduction Questions: Before you begin.

1. What are primers?
2. How many primers will you use in the PCR?
3. What does each primer do?
4. What is DNA Polymerase?
5. What happens when DNA Polymerase meets a primer?
6. What enzyme makes primers?
7. At what temperature does DNA Polymerase break down in our bodies?
8. What type of DNA Polymerase is most often used in PCR?
9. At what temperature does it work best?
10. What are nucleotides? Name them.

**CLICK BEGIN**

1. What does PCR stand for and what does it do?
2. What is PCR used for?
3. How many base pairs are in the Human Genome?
4. How much DNA do you need to perform a PCR?

**CLICK OKAY AND ANSWER QUESTIONS FOR EACH STEP**

1. Name the reaction components you are adding to the DNA sample and why.
2. What does the thermocycler do?
3. What happens when the thermocycler reaches 95 degrees C.?
4. What happens when the thermocycler reaches 50 degrees C.?
5. What happens when the thermocycler reaches 72 degrees C.?

**CONTINUE MOVING THROUGH CYCLES**

1. What happens in Cycle 3?
2. How many fragments do you have at the end of Cycle 4?
3. How many fragments do you have at the end of Cycle 5?
4. How many fragments do you have at the end of 30 Cycles?
5. Describe your sample at the end of the PCR.