**VIDEO GUIDE BOZEMAN BIOLOGY THE OPERON**

1. Most operons are in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Explain the function of each component of an operon:
   1. Promoter
   2. Operator
   3. Repressor
   4. Genes
3. What is the only part of an operon that is made of protein?
4. If **no** lactose is present, the operator is in the \_\_\_\_\_\_\_\_\_\_\_ position, and RNA polymerase (can or cannot) bind and transcribe mRNA
5. If lactose **is** present, the operator is in the \_\_\_\_\_\_\_\_\_\_\_ position, and RNA polymerase (can or cannot) bind and transcribe mRNA
6. If tryptophan **is** present, the repressor (is or is not) bound to the operator, and the operator is in the \_\_\_\_\_\_ position.
7. If tryptophan i**s not** present, the repressor (is or is not) bound to the operator, and the operator is in the \_\_\_\_\_\_ position.