

ROUND ROBIN REVIEW ACTIVITY

STATION 1

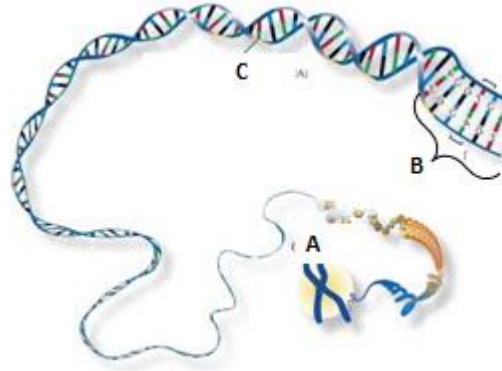
Define the following terms:

- Gene
- DNA
- Chromosomes

STATION 2

What do Genes code for? How are characteristics determined?
Name 2 types of Organisms that may have the similar DNA/ genes.
Identify

- DNA
- Genes
- Chromosome



STATION 3

How is genetic information passed down from parent to offspring?
DNA is known as the “code of life.” What does this mean and how?

STATION 4

There are two types of mutations. Somatic Cells and Sex Cells. Complete the chart.

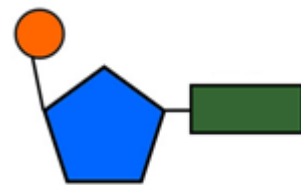
Example of a somatic cell: _____

Example of a sex cell: _____

	Somatic Cell # of Chromosomes	Sex Cell # of Chromosomes
Organism 1	12	6
Organism 2	20	
Organism 3		4
Human		23

STATION 5

The subunits of DNA and RNA are nucleotides. Identify the parts below.
What is the full name/unabbreviated name for DNA and RNA?
What type of organic molecule are they?



STATION 6

List the differences of DNA and RNA:

- Sugars:
- Nitrogenous Bases:
- Structure:

List the similarities of DNA and RNA:

- Nitrogenous Bases:
- Structure

STATION 7

Complimentary Rule States that

- A always pairs with ____ or ____.
- G always pairs with ____.

Identify the complimentary DNA bases for the DNA molecule.

ATC GGC ATC GAT

Identify the complimentary mRNA bases for the DNA molecule.

ATC GGC ATC GAT

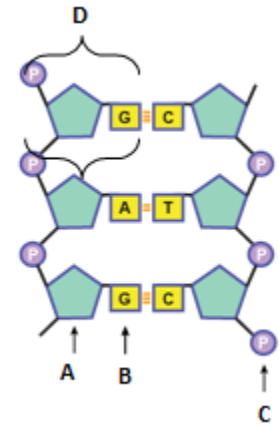
STATION 8

The picture to the left shows a nucleic acid. Answer the questions.

Is it DNA or RNA? How do you know?

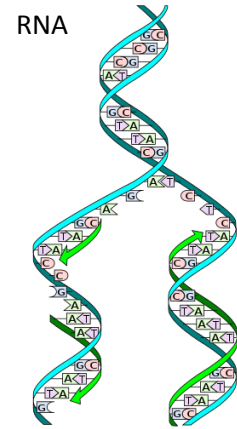
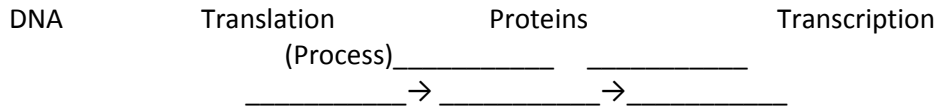
What represents:

- A B C D



STATION 9

Place these in order:



STATION 10

Identify the process and the organelle it takes place in.

Briefly describe the steps.

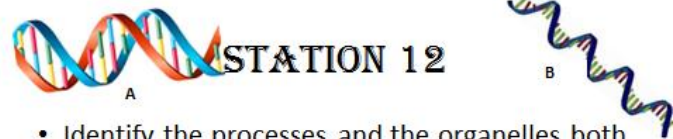
What things are needed/required?

STATION 11

What is the purpose of DNA Replication?

What is the purpose of Transcription?

What is the purpose of Translation?



STATION 13

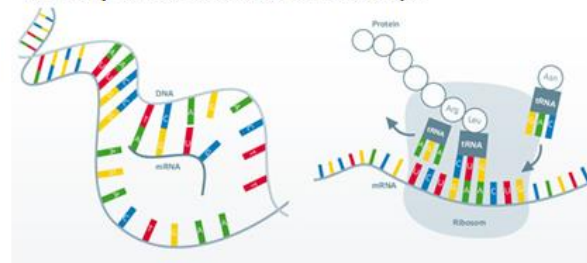
What is being made in DNA Replication?

What is being made in Transcription?

What is being made in Translation?

STATION 12

- Identify the processes and the organelles both takes place in.
- Identify Structure A and B at top.



STATION 14

What is used during Transcription in order to create a mRNA strand?

Why do we need to convert the DNA code into RNA?

STATION 15

Identify the jobs/functions of the following:

- mRNA tRNA rRNA (ribosome) Amino Acid

STATION 16

Use the following sequence to create a protein:

DNA: TAC GGA TCG

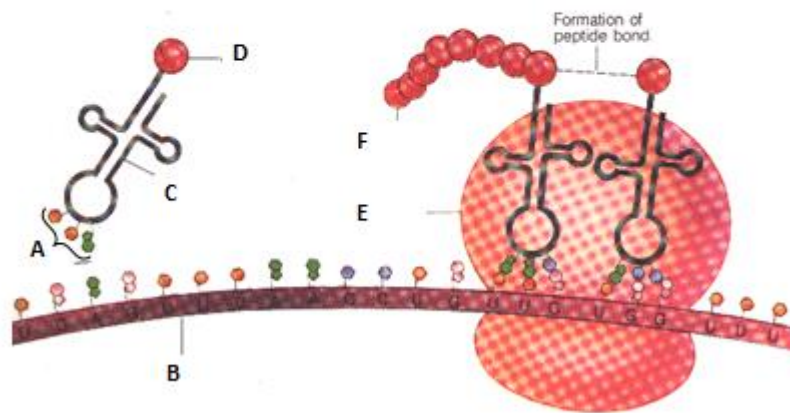
mRNA:

Amino Acid:

tRNA:

STATION 17

What are these structures in Translation?



STATION 18

What are mutations?

Are all mutations bad/harmful?

Explain.

In order for a mutation to be

passed to offspring, where does

this mutation have to occur?

somatic or sex cells?

What are the two types of

mutations?

STATION 19

What is genetic engineering?

What was the purpose of the Human Genome Project? How has it improved our understanding of Biology?

STATION 20

What is a clone?

How does a clone compare to the original organism?

What is an example of a disorder used in gene therapy? What is the purpose of this research?

STATION 21

What is an example of selective breeding and hybridization?

Why do farmers use these processes in growing crops?

List 3 ways plants have been genetically altered that provide benefits?