

DNA Enrichment Seminar
Student Pre-Assessment/Interest Survey

Name & Grade:

DNA Seminar Pre-assessment/Interest Survey

Directions: Please answer the following questions to the best of your abilities. Do not stress over being “right” or “wrong” this is simply an information gathering method so we know where to begin.

1. I am interested in learning about DNA’s structure, function, history, and maybe some genetics.
 - O: Yes, that’s why I am here.
 - O: Yes, but I am not sure how much I want to learn about DNA
 - O: Maybe, I am not sure but would like to wait and see
 - O: No, I think I came to the wrong meeting

2. How often would you be willing to meet?
 - O: Twice a week (*unlikely, given all your busy schedules*)
 - O: Once a week, if possible (*with an additional make-up meeting.*)
 - O: Once every two weeks (*with a make-up meeting during “off weeks.”*)
 - O: Monthly (*Mr. Cressler’s least favorite option*)

3. Which periods and classes if any are impossible* for you to meet during?
Example: Algebra 1/Period 2

4. Which periods would be best for you to participate?
Example: Developmental Reading/ Period 4

5. Should Mr. Cressler approach the science teachers about extra credit for participating students? (Like the Meeting Mongolia Meetings)

6. DNA is an acronym. What do its letters stand for?

7. Where is DNA usually located?

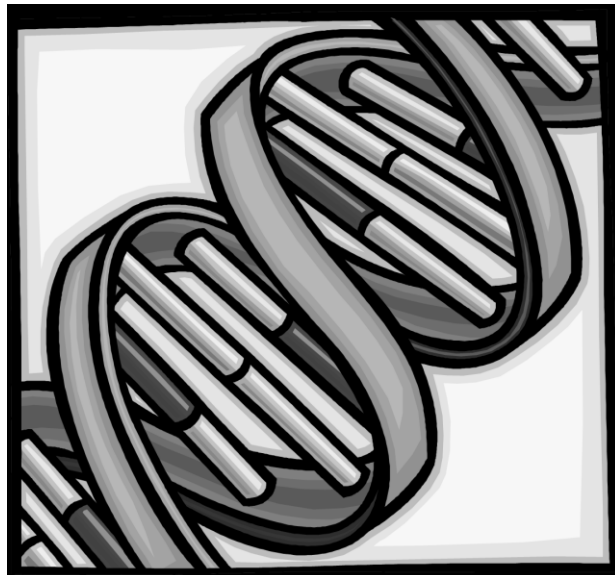
8. What is DNA’s function (What does it do?)

9. Do all living things contain DNA?

10. What is a gene?

11. What is the basic shape of DNA?





12. DNA has a very close relative known as RNA what does this acronym stand for?
13. What is a chromosome?
14. What is a codon?
15. What is a ribosome?
16. Proteins are made from amino acids... about how many different amino acids are there?
17. Who discovered DNA?
18. It has been said that, "Peter Piper picked a peck of pickle peppers." Is a peck more or less than a bushel?



DNA Enrichment Seminar
Handouts: Purines, Pyrimidines,
and Deoxyribose

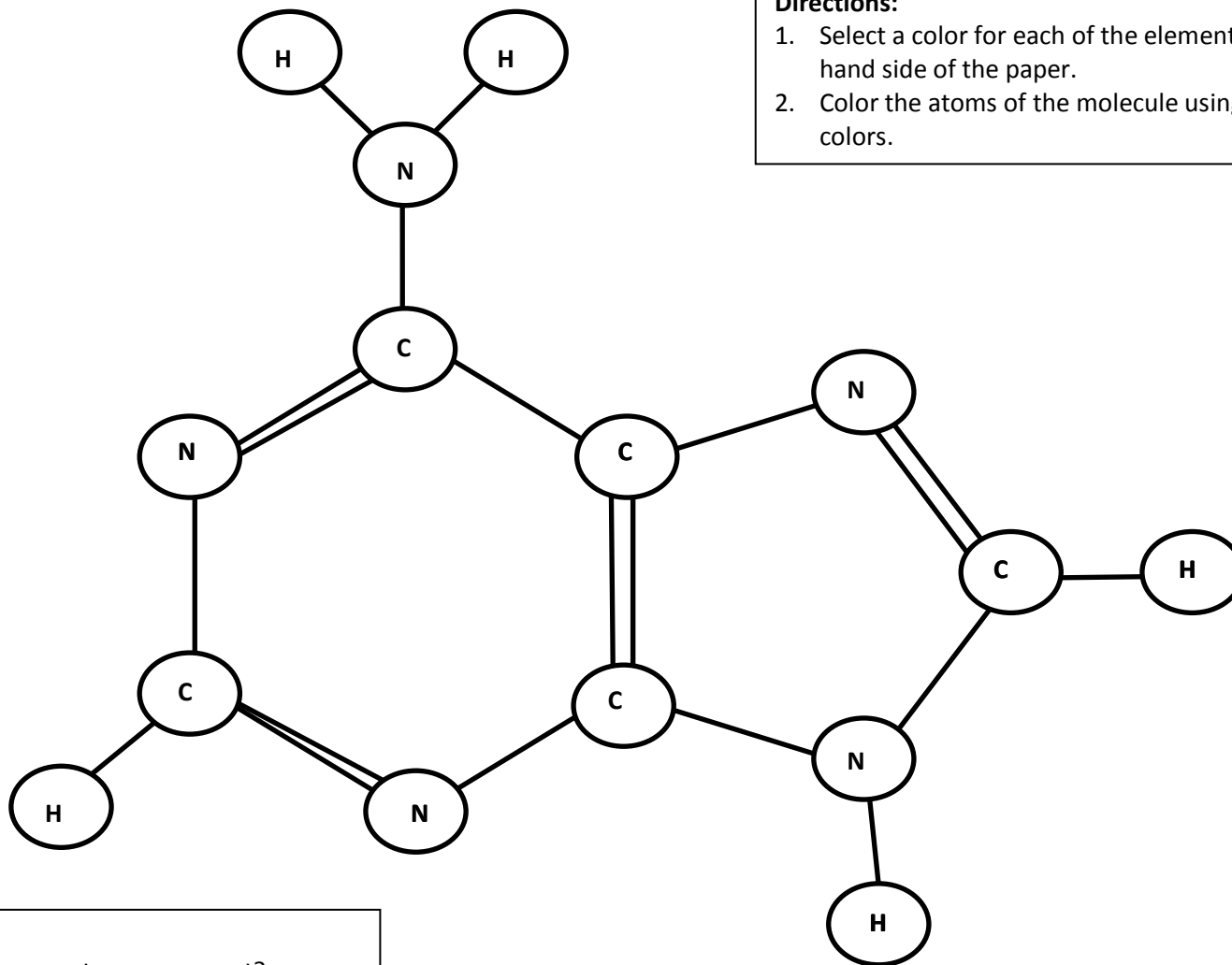
ADENINE: (PURINE, 2 RINGS)



-  Carbon
-  Hydrogen
-  Nitrogen
-  Oxygen

Directions:

1. Select a color for each of the elements listed on the left hand side of the paper.
2. Color the atoms of the molecule using your selected colors.



Things to consider:





What do the single lines between atoms represent?

What do the double lines between atoms represent?

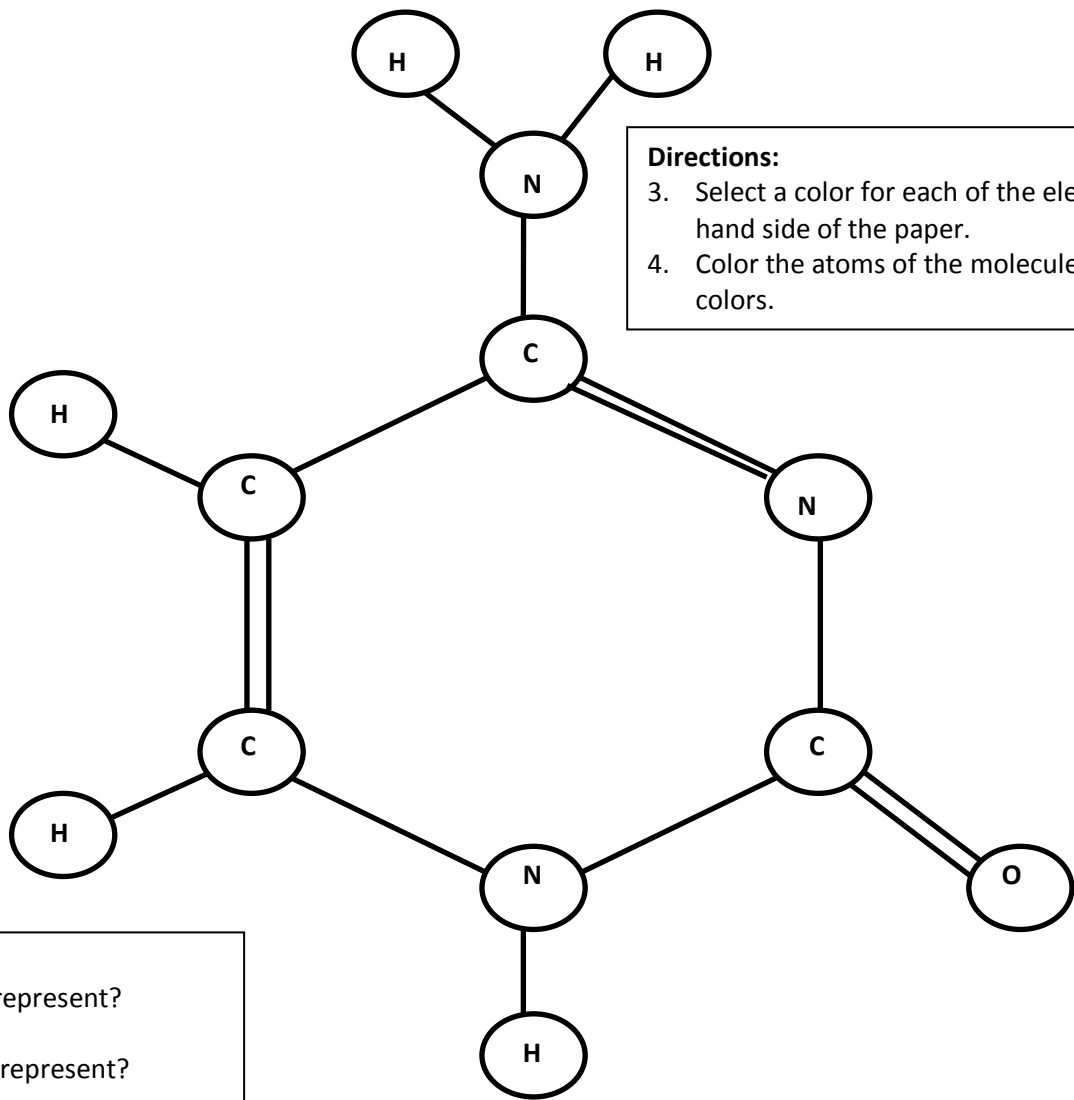
Based on the diagram how many of each atoms are present?

CYTOSINE: (PYRIMIDINE, 1 RING)



-  Carbon
-  Hydrogen
-  Nitrogen
-  Oxygen

Directions:
3. Select a color for each of the elements listed on the left hand side of the paper.
4. Color the atoms of the molecule using your selected colors.







Things to consider:
What do the single lines between atoms represent?
What do the double lines between atoms represent?
Based on the diagram how many of each atoms are present?

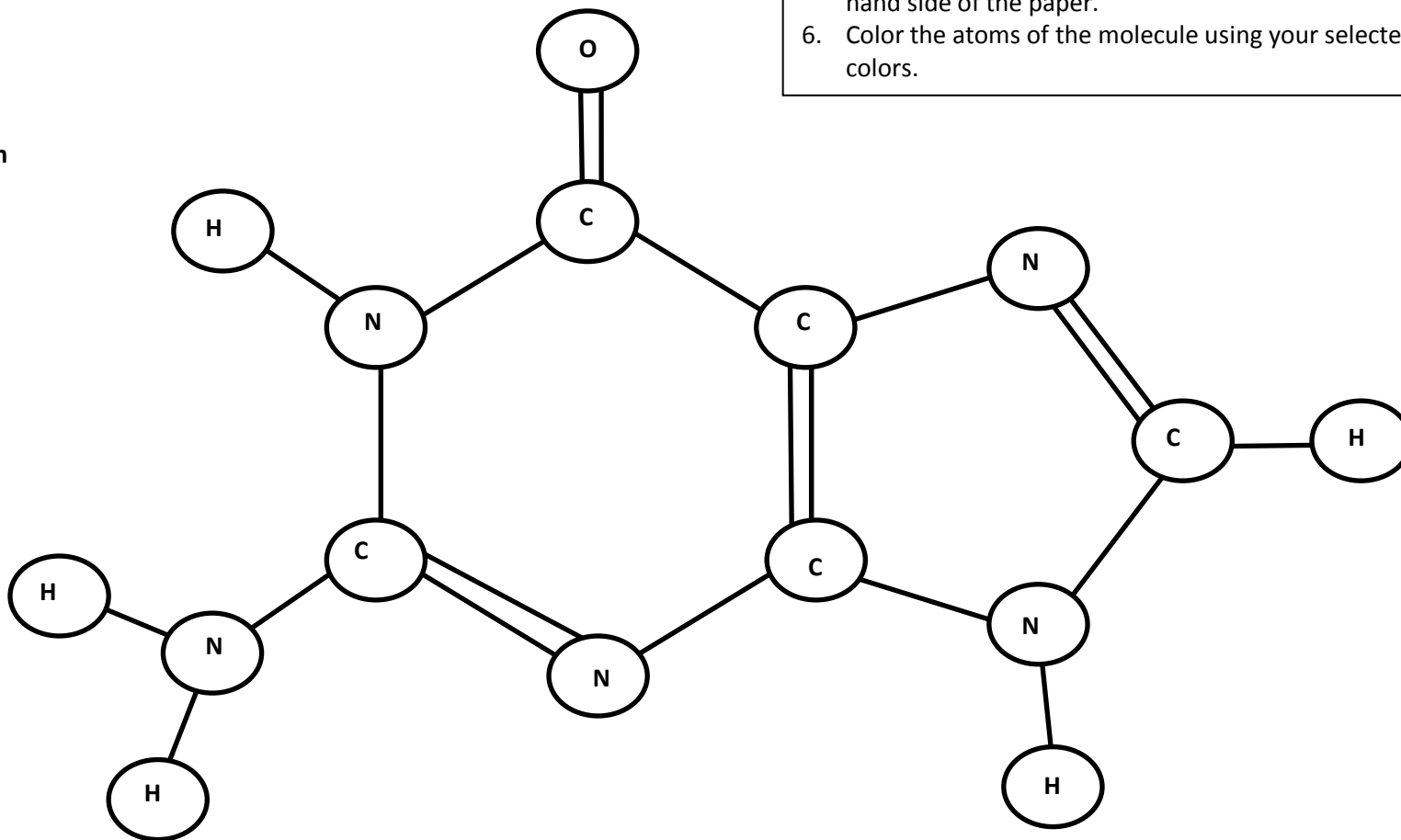
GUANINE: (PURINE, 2 RINGS)



Directions:

5. Select a color for each of the elements listed on the left hand side of the paper.
6. Color the atoms of the molecule using your selected colors.

-  Carbon
-  Hydrogen
-  Nitrogen
-  Oxygen



Things to consider:

What do the single lines between atoms represent?

What do the double lines between atoms represent?

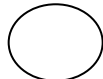
Based on the diagram how many of each atoms are present?

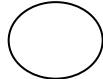
THYMINE: (PYRIMIDINE, 1 RING)





Directions:

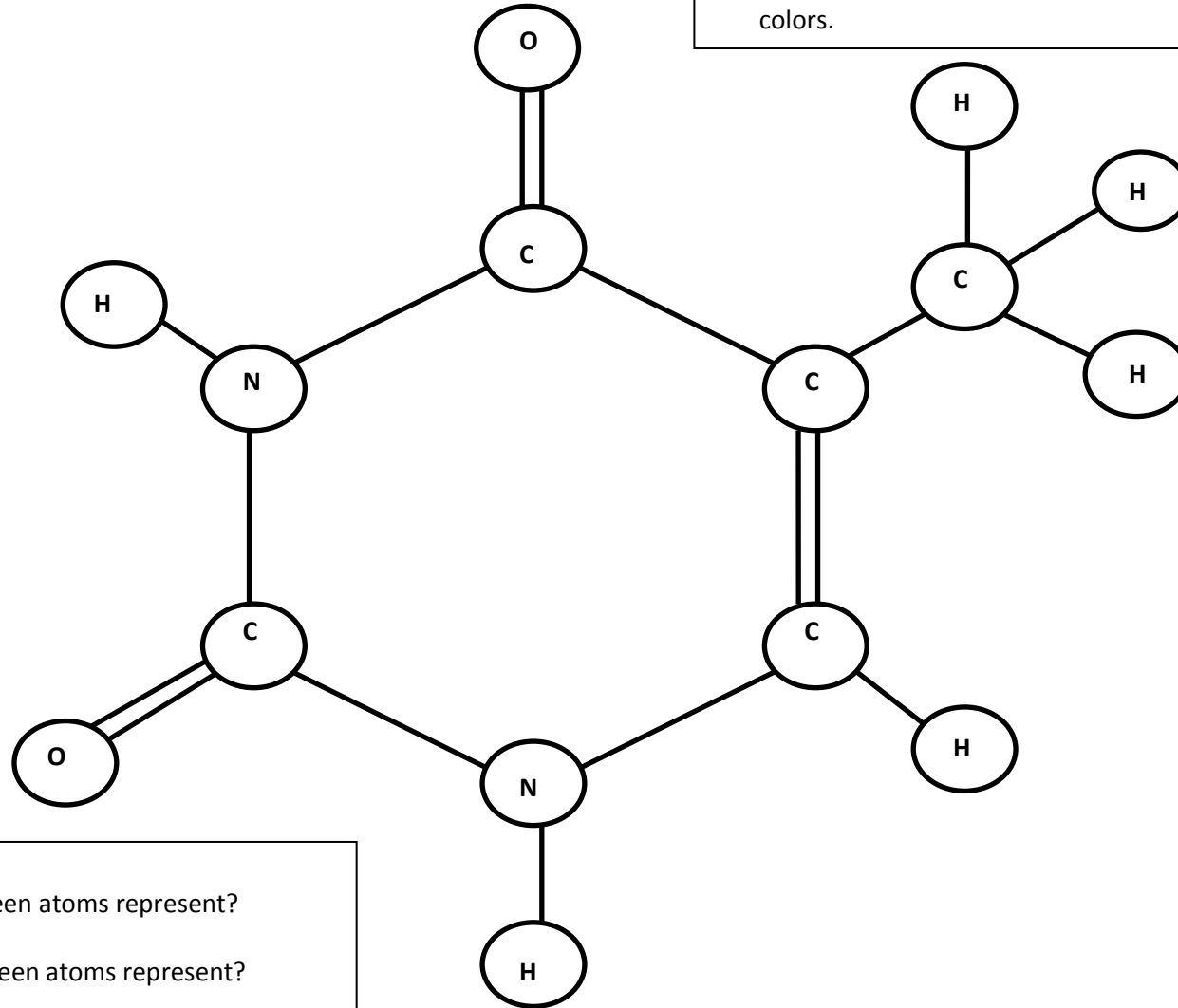
7. Select a color for each of the elements listed on the left hand side of the paper.
8. Color the atoms of the molecule using your selected colors.

 Carbon

 Hydrogen

 Nitrogen

 Oxygen



Things to consider:

What do the single lines between atoms represent?

What do the double lines between atoms represent?

Based on the diagram how many of each atoms are present?

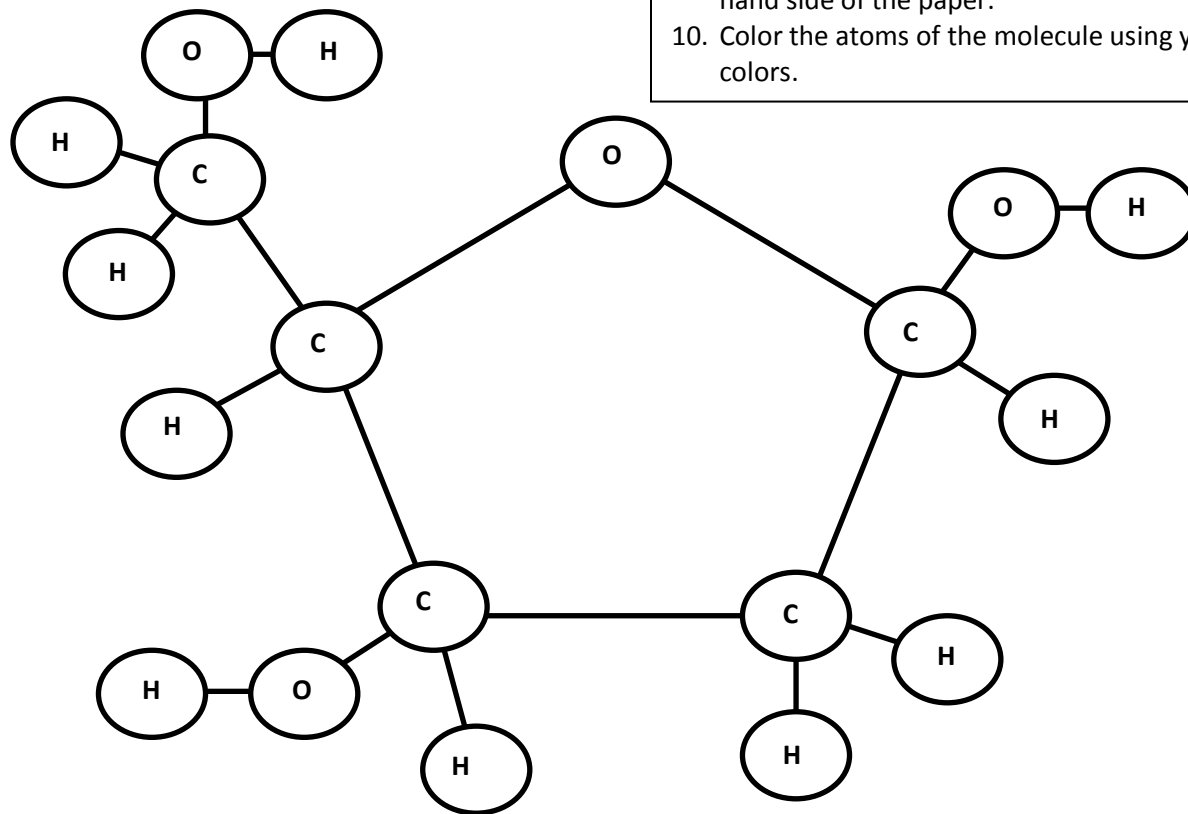
DEOXYRIBOSE: SUGAR (MONOSACCHARIDE)



Directions:

9. Select a color for each of the elements listed on the left hand side of the paper.
10. Color the atoms of the molecule using your selected colors.

- Carbon
- Hydrogen
- Nitrogen
- Oxygen



Things to consider:

What do the single lines between atoms represent?

What do the double lines between atoms represent?

Based on the diagram how many of each atoms are present?