

GEOMETRY G5 Project

NAME: _____ DUE DATE: _____
PERIOD: _____

This is your cover sheet for your project. Attach it to the front of your work when you turn it in.

The Assignment

You will **construct** a picture on plain white or colored unlined paper that includes construction requirements as listed below. The picture should be neat, creative, and fun! There will be 3 parts to your project:

1. The constructed picture with all construction markings shown. You may only use a compass and a straightedge. **All arcs must be shown.** Once you are done with your construction then you should photocopy your work. This is page 1 of your project. You should then number each construction (corresponding to the numbers in the list). This is so that I can identify the construction. When done, **give the constructed picture to your teacher** so they may make a photo copy.
2. A shape identification key: Make a key corresponding with the shapes in the constructed picture are so they are easily identified (numbered or color coordinated keys are best).
3. A colored in drawing from constructions. Here, you will take your original and erase construction markings, arcs, and rough draft marks. You will not number the constructions. You will make the final product artistic and polished. Make sure that you have photocopied your construction and saved it in a safe place before doing this part!

The Design

Here are some ideas for your design:

- Underwater design
- Landscape
- Building or house
- Sports field or court
- Abstract design
- An animal or person
- Your name or initials in a design

Constructions which must be included

1. Duplication of an angle
2. Perpendicular to a segment (it could be a bisector)
3. Angle bisector
4. Midpoint of a line segment
5. Parallel line segments
6. Equilateral or isosceles triangle
7. Two different quadrilaterals (separate from above) from this list: kite, square, rectangle, parallelogram, trapezoid (any type – name it).
8. A regular hexagon or *regular pentagon (regular means all sides are congruent and all angles are congruent)

To get a 5, 6, or 7

9. A circumcenter of a triangle and the circle that circumscribes the triangle.
10. An incenter of a triangle and the circle that inscribes the triangle.
11. Another center of a triangle (either centroid or orthocenter)
12. A tangent to a circle (tangent touches the circle in one place)

RUBRIC for GRADING:

	Constructions	Picture	Key/Explanation	Instructions
4	You have done the 8 basic constructions with only minor errors. Construction markings are shown (no freehand sketching). Construction is labeled.	You have met at least one of the requirements of Colorful, Creative, Neat	You have clearly labeled all constructions and provided a key	This cover sheet & rubric is attached, pages are in order, and your name is included
5	You have done all 8 of the constructions and another extra construction perfectly or 2 or more extras with only minor errors. Construction markings are shown (no freehand). Constructions are labeled.	You have met at least two of the requirements of Colorful, Creative, Neat	Level 4 has been met	Level 4 has been met.
6	You have done all 8 of the constructions and at least 2 extra constructions with no errors or 3+ with minor errors. Construction markings are shown (no freehand). Constructions are labeled.	You have met all three of the requirements of Colorful, Creative, Neat	Level 5 has been met	Level 5 has been met.
7	You have done all 12 constructions perfectly	You have met all three of the requirements of Colorful, Creative, Neat	Level 6 has been met	Level 6 has been met.

