

NOTE: Today is a computer lab lesson. Make sure you have signed up for the computer lab in advance.

TITLE OF LESSON

Geometry Unit 1 Lesson 25 – Group Project: Begin Photoshop Image
Prove it! What's on the outside? What's on the inside? Of Geometry

TIME ESTIMATE FOR THIS LESSON

One class period

ALIGNMENT WITH STANDARDS

California – Geom:

- 1.0 Students demonstrate understanding by identifying and giving examples of undefined terms, axioms, theorems, and inductive and deductive reasoning.
- 2.0 Students write geometric proofs, including proofs by contradiction.
- 3.0 Students construct and judge the validity of a logical argument and give counterexamples to disprove a statement.

NETS for Students 1-5

MATERIALS

Geometric Shapes Project Description – Student Page
Project Process – Student Page
Project Demo 1.psd – Image
Project Demo 2.psd – Image

Project Demo 1 Cheat Sheet – Teacher Page
Project Demo 2 Cheat Sheet – Teacher Page

STUDENT FOLDERS: Ideally, it would be best to have all students have access to all images and student pages on their individual computers. In addition, they need to be able to save their images. This is completely dependent on your site's computer network system. Please see your site technology person to figure out the easiest and most useful way to have students access the images and student pages and to save their work.

LESSON OBJECTIVES

- To begin to demonstrate understanding of the basic tools in Photoshop to use them to create a pleasant/creative/interesting visual presentation
 - To use layers and layer placement to enhance the relationship among shapes
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FOCUS AND MOTIVATE STUDENTS

- 1) Homework Check – Have students sit at their computers in their groups as they come in –they should be around one or two computers. Stamp/initial complete homework assignment. Pass back graded work and have students place in the appropriate sections of their binders.
 - 2) [Agenda](#) – Have students copy the agenda.
 - 3) Computer Protocol – Review the computer etiquette you have established for your class and the consequences for any misbehavior.
 - 4) Save – Remind students it is their responsibility to save frequently today. You cannot be responsible for any lost or deleted work because they forgot to save.
 - 5) Post/Project – Have *Project Demo 1.psd* onscreen or on a monitor as students come in. Ask students to take out or open the **Project Demo 1 and 2 Cheat Sheets**. Work through each one as a class asking students which of the shapes they now understand and could do themselves. Also have them note or highlight those they have not yet learned how to do (in Photoshop, not the geometric shapes).
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ACTIVITIES – INDIVIDUAL AND GROUP

1. Recording Tools – Hand out the **Project Process** sheets as students take all of their reference pages out or open them on their computers. They may want to have their **Geometric Shapes Project Description** open to remind them what their project should be. Review the process sheet with them. For each shape, the group recorder should document which tools they used to create or illuminate the shape. They should spell out option settings, layer styles, colors, sizes, and diameters. Basically, they will be creating their own abbreviated cheat sheets.
2. Group Work – Have students spend 5 minutes sharing any ideas they already have for creating shapes in Photoshop. They can also take this time to brainstorm ways to create the 10 shapes they are required to include in their image. With the illustrator guiding, students should mock up their image, or make a sketch of how they think they'll lay the shapes out. As they find images to use this may change, but they should start with an idea.

Once they have a mock-up, they have to begin with a blank canvas. If they remember how, just tell them it should be the size of a standard piece of paper. If not, have them go to File → New, set 8.5 inches width and 11 inches height (reverse for landscape view). They should save it immediately as their project name (whatever they want to call it).

3. Optional: Photos – Students can use all the photos they've been using the past few weeks, but are free to use others too. If they are not yet familiar with saving pictures from the Internet (those last 2 kids out there), post this info for them:
 - a) If you find pictures you want to use, put the cursor over the picture and right click. You should get a menu that gives you the option to *Save Picture As...* If that option does not appear, the image may be protected, which means the people who designed the site do not want you to use their pictures (almost all sports teams' logos are protected). You have to respect that because taking the picture in a case like that is basically stealing.
 - b) Left click on the option to *Save Picture As...* When the *Save Picture* dialogue box comes up, under *Save in:* select *Desktop* or the student folder you are supposed to use.
 - c) Under *File name:* type a name that will help you remember what this is a picture of. Click *Save*.
4. Save – Circulate as students work together to begin to build their images. Remind them to save constantly. Also, they can have as many layers as they want, so they should put everything on a separate layer. That way they can keep it or throw it in the trash later if they decide not to use it. You may want to review how you have decided to save.
5. Clean Up – A minute before class is over, tell them to save everything. They'll learn one new thing next week (anyone remember what they haven't learned yet from the project demos?) but will have most of class to work on their projects. Ask students to shut down their computers, clean up their work stations, and push in their chairs.

HOMEWORK

None

GROUP ROLES

Recorder – Your job is to make sure to document your group process by recording what you do to create or define each shape.

Illustrator – Your job is to manage the overall appearance of your group's image. You will be the designer for the project.

Researcher – Your job is to find any images your group doesn't have and to check details about geometric shapes.

Prove It
How do we create truth?

2:1:25:Group Project: Begin Photoshop Image

Help Desk – Your job is to find/figure out, ideally using Photoshop Help and reference sheets you've gotten in class, how to do anything (within reason) that your group wants to do.

DOCUMENTATION FOR PORTFOLIO

None

