

STAGE LIGHTING ORGANIZATION

Grades 9-12

Educational Objective: Students will demonstrate their knowledge of organization of lighting elements in a logical program.

Materials Needed: tape measure, colored chalk, colored pencils, colored spike or marking tape, graph paper, pencil and masking tape.

Can take place over 2-4 class periods.

Hook: Show students a video of a show with complex lighting scheme [a *Cirque du Soleil* show, *Wicked*, *Jersey Boys*, etc] and discuss the problems related to organizing the data for complex shows.

Exercise

1. Discuss Key Light, Fill Light, Front Light, Side Light, Down Light, and Back Light
2. Divide the stage (or space) into lighting areas
 - a. Use a tape measure and colored chalk (or masking tape) to divide the stage into the 9 traditional areas¹
 - i. Down Stage Right (DR), Down Stage Center (DC), Down Stage Left (DL), Right Center (RC), Center Stage (CS), Left Center (LC), Up Stage Right (UR), Up Stage Center (UC), Up Stage Left (UL)
 - b. Number the areas from 1 - 9
 - i. DR=1, DC=2, DL=3, RC=4, CC=5, LC=6 , UR=7, UC=8, UL=9
 - ii. Divide the students into 9 teams

¹ See illustration at the end of the document.

- iii. Assign a team to each area
- c. Assume that six lights will be aimed (angled) into each area
 - i. A key light from above in the front and to the left
 - ii. A second key from above in the front and to the right
 - iii. A fill light from above and directly in front
 - iv. A back light from above and directly behind the area
 - v. A backside light from above, behind and to the left
 - vi. A side light from above and to the right
- d. Have the students indicate the angle and direction of each light in their area with an arrow in different colored chalk or tape
- e. Discuss the logical approach to assigning channels (dimmers) to the lights
- f. Create a life-size 'cheat sheet' or 'magic sheet'
 - i. Assign and label (next to the arrow indicating the light) Channel 1 to the Key light in area 1, Channel 2 to the Key light in area 2, Channel 3 to the Key light in area 3, and so on through Channel 9 assigned to the Key Light in Area 9
 - ii. Assign and label (next to the arrow indicating the light) Channel 11 to the second Key light in area 1, Channel 12 to the second Key light in area 2, Channel 13 to the second Key light in area 3, and so on through Channel 19 assigned to the second Key Light in Area 9
 - iii. Assign and label (next to the arrow indicating the light) Channel 21 to the Fill light in area 1, Channel 22 to the Fill light in area 2, Channel 23 to the Fill light in area 3, and so on through Channel 29 assigned to the Fill Light in Area 9
 - iv. Repeat assigning Channels 31-39 to the back light from above and directly behind the area, Channels 41-49 to the backside light from above, behind and to the left, Channels 51-59 to side light from above and to the right
- g. Have each student re-create the 'cheat sheet'/'magic sheet' on plain paper using colored pencils

- h. Discuss the advantage of assigning channels to lights in a logical pattern
 - i. An individual can easily retain the data needed to manipulate a large number of lights
 - ii. Allows for quick changes during technical rehearsals
 - iii. Reduces paperwork
- i. Discuss logical systems if:
 - i. There were specials in some are all of the areas
 - ii. There were 15 areas instead of 9
 - iii. There were 12 lights instead of 6
 - iv. Etc.

UP STAGE RIGHT (UR)	UP STAGE CENTER (UC)	UP STAGE LEFT(UL)
STAGE RIGHT CENTER (RC)	CENTER STAGE (CS)	STAGE LEFT CENTER (LC)
DOWN STAGE RIGHT (DR)	DOWN STAGE CENTER (DC)	DOWN STAGE LEFT(DL)