

# Play Sets

*Fifth Grade + Math*

## CORE SUBJECT AREA

Math

## ART FORM + ELEMENTS

Drama  
Spectacle

## MSCCR STANDARDS

CCSS.MATH.CONTENT.5.G.A.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).

## MSCCR CREATIVE STANDARDS

TH:Cr.1.1.5.b Propose design ideas that support the story and given circumstances in a drama/ theatre work.

## RECOMMENDED RESOURCES

Coordinate plane printable found at [https://theworksheetsonline.com/cgibin/coordinate\\_plane.pl](https://theworksheetsonline.com/cgibin/coordinate_plane.pl)

## LESSON SEQUENCE

### Introduction

TTW begin by displaying a coordinate plane to the student. The teacher will then tell the student that this graph is a coordinate plane and that a coordinate plane is a two-dimensional area used to graph pairs of numbers along a number line.

## DURATION

2 Class Periods (75 minutes each)

## OBJECTIVE

The student will graph ordered pairs on a coordinate system.

TSW design a theater set based on a coordinate system.

## MATERIALS NEEDED

Paper for writing scripts  
Pencils

## VOCABULARY

Coordinate plane  
X-axis  
Y-axis  
Graph  
Quadrant  
Origin  
Actor  
Spectacle  
Stage  
Set  
Intersecting  
Perpendicular

TTW and the student will review the different parts of a coordinate plane: the four quadrants, the x-axis (horizontal line), y-axis (vertical line), and origin (0,0). Then, the teacher will review with the student that the x-axis and y-axis are intersecting and perpendicular lines that cross one another and that where they intersect creates the origin: 0,0.

TTW review with the student and the four quadrants are created by the four sections, the intersections of the lines create. The teacher and the student will review Quadrant 1 (upper right), Quadrant 2 (upper left), Quadrant 3 (bottom left), and Quadrant 4 (bottom right).

TTW split the students into small groups and will give each group a few pairs of numbers. The student will work with their groups to graph these numbers on the coordinate planes on the board.

### **Transition**

TTW introduce the student to the theater concept of spectacle. Then, the teacher will explain to the student that spectacle is the visual elements of a play that the audience sees, such as the costumes, scenery, and stage design.

TTW tell the student that they will be using a coordinate plane to create a design for how they want to position actors on the stage during a theater production. The teacher will then review with the student the purpose of a stage and set in theater.

The teacher will tell the student that they will be using a limited and minimal set by using just their bodies to convey the action of their play.

The teacher and the student will rearrange the desk so that the room contains an open space.

The teacher and the student will use duct tape to create a coordinate plane with an origin, an x-axis, a y-axis, and four quadrants in the center of the room.

TTW model to the students using the coordinate plane to plan out stage directions so the actors know where to stand and move to the stage. Then, the teacher will explain to the students that the actor on which the action is focused should be standing closer to the front and center of the stage, and when the action shifts to another actor, the first actor should move to another position.

The teacher will explain that the actors change positions on the stage based on how the actions of the story is moving and that the way the audience sees the actors positioned determines where they focus when moving the stage.

TTW explain to the students that actors in the back and sides have less action focused on them while actors in the center of the stage have more action focused on them.

TTW choose some student volunteers to practice. Then, TTW tell the students the coordinates on the plane on which to stand.

The student will then, position themselves on these coordinates.

The teacher will tell the student the new coordinates that they will move to at the teacher's direction.

## Description

TTW split the students into groups of four. Then, TTW distribute to the student a coordinate plane and beans to represent actors.

The student will collaboratively write a short script of a scene to perform. Then, the student will use their coordinate plane sheet to plan out where they want the actors to be positioned on the stage (for example, actor 1 could start at 0,0 and then move to -2,4 as the scene changes)

The student will change the actors' positions to different coordinates on the plane to place emphasis on specific characters during the scene.

Then, the student will use the beans provided by the teacher to practice moving the actors on the coordinate plane.

Lastly, the student will perform their scenes with their classmates acting as the audience.

## EXTENDED LEARNING ACTIVITIES

The students can use the coordinate plane to create a full theater stage layout complete with props, movement.

## SOURCES

Original lesson plan found at

<https://www.pbslearningmedia.org/resource/ket6drama/props-blocking-graphs/?#WwzRKUgvzIU>

Modified by Allison Nester

## TIPS + FREQUENTLY ASKED QUESTIONS

Give the student a length/time on writing their scripts and performing their plays, since not all classrooms have unlimited space, either limit your coordinate plane stage to a reasonable size or move the class to a larger area to complete this assignment.