

Like the painter Mondrian, you will make a work of art using lines and shapes.

## CONSTRUCT AND EXPLORE



1. Open **Mondrian in Motion.gsp**. Go to page “Blue Line.”  
Make the window as large as you can.



2. To the right of the blue line, construct five points.



3. Select the points and the blue line.  
Choose **Construct | Parallel Lines**.

4. Drag the new lines, one at a time. How do they behave?

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5. Select the points and the blue line again.  
Choose **Construct | Perpendicular Lines**.

6. Drag the new lines. What is their relationship to the blue line?

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7. What shapes are made by the lines?

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8. Try to drag any line so that it is neither parallel nor perpendicular to the other lines. Can you do it? \_\_\_\_\_



9. Choose a rectangle in your picture to color in. Going around the rectangle, click the intersections of the lines to create four vertices and a rectangle. Click the first vertex again to complete the rectangle.

With the rectangle selected, choose **Display | Color** and choose a color.

10. Repeat step 9 to color in four more rectangles.



11. Sign your name to your work.



12. Now you will animate your picture.

Choose the **Point** tool.

Choose **Edit | Select All Points**.

Choose **Display | Animate Points**.

13. Describe how the shapes behave. \_\_\_\_\_

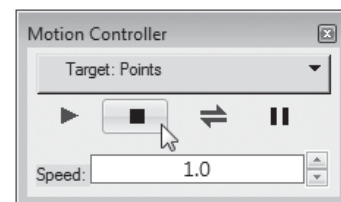
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14. To stop the animation, press the Stop button on the Motion Controller.

You can also choose **Display | Stop Animation**.



15. Press *Show Point A*. Slowly drag point A.

How do the lines and shapes behave? \_\_\_\_\_

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