Angles and Lines – Grade Five

Lesson Summary:
In this lesson, students listen to a story and insert vocabulary and generate definitions using context clues. In the body of the lesson which is divided into four parts, students look at geometric figures and identify and define the following terms: perpendicular, parallel, skew line pairs, segments, rays and angles. Students name the terms using correct symbols and letter representation. Students apply the vocabulary by drawing a geometric figure using descriptions from partners. In the final part of the lesson, students move from two-dimensional identifications to three-dimensional identifications by creating three-dimensional figures and determining the line relationships as well as parts of the figure.

Estimated Duration: Two hours

Commentary:
As students continue to identify, compare, classify and analyze two-and three-dimensional shapes and objects, they include points, lines, angles and relationships of lines and angles. (Principles and Standards for School Mathematics, 2000)

Reviews from Ohio educators include:
“This lesson is very straight forward and easy to use with good ideas on how to teach the lesson rather than just providing definitions.”
“Good examples of pictures are presented in which students can identify and explore line and other geometric concepts.”

Pre-Assessment:
- Give each student at least 10 toothpicks or other manipulatives that can be used to model parallel, perpendicular and intersecting lines. Have students glue the model of the lines to an index card or construction paper and write a description of the model on the back of the card or paper.
- Have students discuss the descriptions of the types of lines. Record the comments on chart paper. Ask guiding questions to dispel any misconceptions.

Scoring Guidelines:
Informally assess students’ understanding of parallel, perpendicular and intersecting lines through their constructions and the class discussion.

Ohio Standards Connection

Geometry and Spatial Sense

Benchmark A
Identify and label angle parts and the regions defined within the plane where the angle resides.

Indicators
2. Use standard language to describe line, segment, ray, angle, skew, parallel and perpendicular.
3. Label vertex, rays, interior and exterior for an angle.

Benchmark D
Identify, describe and classify types of line pairs, angles, two-dimensional figures and three-dimensional objects using their properties.

Mathematical Processes

Benchmarks
H. Use representations to organize and communicate mathematical thinking and problem solutions.
I. Select, apply, and translate among mathematical representations to solve problems.
J. Communicate mathematical thinking to others and analyze the mathematical thinking and strategies of others.
K. Recognize and use mathematical language and symbols when reading, writing and conversing with others.

Lesson Summary:
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- Give each student at least 10 toothpicks or other manipulatives that can be used to model parallel, perpendicular and intersecting lines. Have students glue the model of the lines to an index card or construction paper and write a description of the model on the back of the card or paper.
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Informally assess students’ understanding of parallel, perpendicular and intersecting lines through their constructions and the class discussion.
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Circulate the room to check construction of the models. Have students share models of the lines especially to show different orientations of the lines.

**Post-Assessment:**
This is a two-part assessment. Using a pencil and colored pencils (red, blue, green and orange), students individually complete *Angles and Lines Post-Assessment*, Attachment A, in order to show their understanding of identifying and labeling types of lines, rays and angles. Students also define these terms using mathematical or everyday language.
- Distribute *Angles and Lines Post-Assessment*, Attachment A, for students to complete individually.

**Scoring Guidelines:**
- Use *Angles and Lines Post-Assessment Answer Key*, Attachment B and the following rubric for questions 12 through 18. Compare the answers on the post-assessment with first page of pre-assessment.
- Use the following rubric to score page 2 (numbers 13-18) of *Angles and Lines Post-Assessment*, Attachment B.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meets Expectations</strong></td>
<td>• Shows understanding in defining mathematical terms</td>
</tr>
<tr>
<td><strong>Adequate Understanding</strong></td>
<td>• Shows a partial understanding in defining mathematical terms</td>
</tr>
<tr>
<td><strong>Needs Intervention</strong></td>
<td>• Shows an inadequate understanding in defining mathematical terms</td>
</tr>
</tbody>
</table>

**Instructional Procedures:**
**Part One: Identifying Figures**
**Instructional Tip:**
Students need colored pencils (red, blue, green and orange) to complete this part of the lesson.

1. Give each student a copy of *Angles and Lines Identification*, Attachment C. Have students use a pencil and colored pencils, to individually complete the activity to show their understanding of identifying and labeling perpendicular, parallel, skew line pairs, segments, rays and angles.
2. Have students select a partner, compare answers and discuss reasoning. Bring the class back together to share discussion and correct answers. Use *Angles and Lines Identification, Answer Key*, Attachment D for correct answers.
3. Have each student draw their own figure and write five questions with answers about line relationships. The questions and answers go with the figure that they drew. Collect and analyze. Observe for misconceptions. Discuss with the class and allow students to correct mistakes.
Part Two: Naming Figures

4. Create pictures of simple geometric figures such as a line, ray, line segment, angle and point on large tag board. Place them on the chalk tray or display in a visible location. Use Sample Cards for Naming, Attachment E, for examples.

**Instructional Tip:**
Answers to Attachment E:
Card 1: $\overline{BA}$ Card 2: $\overline{CD}$ Card 3: $\angle OMN$ or $\angle M$
Card 4: $\overrightarrow{YQ}$ Card 5: $\overline{EG}$ Card 6: X

5. Have students get into small groups and discuss each of the figures, generating a description of each and recording on chart paper. Have each group present its descriptions focusing on one figure at a time. Elicit similarities recorded in each group. Use those ideas to have students come to a consensus for a definition that would describe each figure.

6. Ask, “How do we name these figures using symbols and letters?” Allow students to attempt to name them correctly. Continue until correct representation is made. For example, “$\rightarrow$” should be placed over the capital letters used to represent a ray. Be sure the starting endpoint is named first. The symbol $\angle$ should be placed before three letters to indicate an angle. One letter can be used if there is only one angle that can be made from the vertex. A “$\|\$” should be placed over two capital letters to represent a segment. A point is named by writing the capital letter (with no symbol). A line is named by placing “$\leftrightarrow$” above two capital letters.

7. Have students draw various geometric figures on their paper. Pair students and have them write names using symbols and capital letters for the figures. Monitor for correctness.

8. Write vocabulary words found in Identifying Geometric Terms, Attachment F, on the board in a visible location. Distribute the attachment to each student and read the story aloud while students read it silently. Have students listen and fill in the blanks with the mathematical term that best completes the story. Circulate the room to check for misconceptions.

9. Have students work with a partner to discuss reasons for their choices, and then write each term that they chose and a definition using context clues. Have them draw a sketch that depicts the story and highlight the objects or words in the sketch. Have students share definitions and pictures with the class. Use Identifying Geometric Terms Answer Key, Attachment G, for answers. Evaluate students answers while circulating classroom prior to sharing with partners.

**Instructional Tip:**
Write on an overhead projector using a Plus/Delta chart, a T-chart that shows the good methods of giving directions (plus) and ways to improve their direction - giving skills (delta). Emphasize using the mathematical terms from Part One.

10. Have students record information from the Plus/Delta chart in their journals.
Part Three: Listen and Draw

Instructional Tip:
Using *Cards for Listen and Draw*, Attachment H, cut cards apart prior to class beginning. Have students use barriers such as folders or books to separate the work area of the partners. Each pair of students needs paper and pencils.

11. Have students find a partner. Pass out each card from *Cards for Listen and Draw*, Attachment H, to each set of partners. Only one of the partners sees the card. Have one student describe what is on the card and the other student attempt to draw the figures described. Students determine when they are done. Have students share the drawing and the card to see if they are correct.

12. Pass out the second card to the drawing partner and reverse the roles to give each student an opportunity to describe and draw. Allow partners to reveal their work and discuss how they can communicate the terms and figures more effectively as well as discussing the ways that they communicated their ideas effectively.

13. Have students label the figures that they see on each card. See *Angles and Lines, Sample Cards for Listen and Draw Answer Key*, Attachment I, for answers.

14. Repeat using other cards as necessary.

Part Four: Three-dimensional Figures

Instructional Tip:
Provide toothpicks and mini-marshmallows for Part Four. Allow the marshmallows to dry out slightly to aid in writing on the marshmallows.

15. Have students create a cube using toothpicks and mini-marshmallows. (Vertices will be the marshmallows.) Have students write with permanent marker, the letters (A - H) on the marshmallows to indicate vertices on the cube.

16. Have students get into pairs and use the cube as a model to name types of line segments, vertices, parallel lines, perpendicular lines and lines that are skew by writing them on paper or individual dry erase boards. Check students’ labeling. Select several students to share their models with the class and explain the labeling.

17. Closure: Have students create their own figure using additional toothpicks and marshmallows. Examples: square pyramid, triangular pyramid, rectangular prism. Have students select partner and the student asks the partner to find the various types of lines, segments and vertices including parallel, perpendicular, and skew. The partner writes the names on paper to practice using correct letters and symbols. Circulate room to check for misconceptions.

Differentiated Instructional Support:
Instruction is differentiated according to learner needs, to help all learners either meet the intent of the specified indicator(s) or, if the indicator is already met, to advance beyond the specified indicator(s).

- Students can practice forming figures using hand and body motions. Have students stand with arms outstretched using a fist to represent a vertex, an open hand to represent an arrow. For example:
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a. With hands outstretched and hands made into fists, this represents a line segment.
b. With arms are outstretched, one hand as a fist and the other open, this represents a ray.
c. With arms outstretched and both hands open, that configuration represents a line.
d. With two students standing side by side with outstretched arms and both hands forming fists, this represents parallel line segments. Continue with examples for other terms.

- Yarn or dried spaghetti can be used as a manipulative to form geometric figures and their relationships (parallel, perpendicular, intersecting or skew).
- During the pre- and post-assessments, students can use a solid cube with labeled vertices they have difficulty visualizing the cube as it is drawn on paper.
- Solid geometric shapes can be used to aid in visualizing problems.
- Have students build a model of a three-dimensional figure such as a train engine, rocket ship, robot, etc., and name and label the geometric figures discussed in this lesson. They also can extend it to include other three-dimensional shapes such as cylinders, prisms and pyramids.

Extensions:
- Students create pictures of a skyline of a city, train engine, car or other object and label the geometric figures in the picture.
- Invite an architect to the classroom to present how these geometric figures are used in their work.
- Take a field trip to a city or ballpark and look for the geometric figures.
- Ask the art teacher to discuss how geometric figures are used in art work such as pointillism.

Home Connections:
- Provide suggestions for homework or research of concepts at home or in the community.
- Have a scavenger hunt to find examples of the geometric figures at home. Write sentences that describe the geometric figures and their relationship to one another.

Materials and Resources:
The inclusion of a specific resource in any lesson formulated by the Ohio Department of Education should not be interpreted as an endorsement of that particular resource, or any of its contents, by the Ohio Department of Education. The Ohio Department of Education does not endorse any particular resource. The Web addresses listed are for a given site’s main page, therefore, it may be necessary to search within that site to find the specific information required for a given lesson. Please note that information published on the Internet changes over time, therefore the links provided may no longer contain the specific information related to a given lesson. Teachers are advised to preview all sites before using them with students.

For the teacher: Toothpicks, marshmallows, blank sheet of paper, toothpicks (8 per student), permanent markers, tag boards, overhead projector (optional)

For the students: Marshmallows (4 per student), toothpicks (8 per student), permanent marker, book/folder or other barrier to separate work areas

Vocabulary:
- Exterior
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• interior
• intersecting
• parallel
• perpendicular
• plane
• ray
• segment
• skew
• vertex

Technology Connections:
• Students use computer drawing program to draw the figures and type their name/label next to their drawing.
• There are many web sites available that can be obtained by searching for keywords (lines, line segments, rays, angles).

Research Connections:


General Tips:
• Stress safety as students use toothpicks to create cube.
• Marshmallows are edible, but not after marker have been used to label the vertices of each angle on the cube. Remind students not to consume the labeled marshmallows.

Attachments:
Attachment A, Angles and Lines Post-Assessment
Attachment B, Angles and Lines Post-Assessment Answer Key
Attachment C, Angles and Lines Identification
Attachment D, Angles and Lines Identification Answer Key
Attachment E, Sample Cards for Naming
Attachment F, Identifying Geometric Terms
Attachment G, Identifying Geometric Terms Answer Key
Attachment H, Angles and Lines Cards for Listen and Draw
Attachment I, Angles and Lines Cards for Listen and Draw Answer Key
Attachment A

Angles and Lines Post-Assessment

Name_______________________________ Date__________________________

Directions: Use Diagram A to answer questions 1 through 6 using correct mathematical symbols and letters.

Diagram A:

1. Name one set of perpendicular line segments:_______________________
2. Name one set of parallel lines:___________________________________
3. Name one set of parallel line segments:___________________________
4. Name a ray:_________________________________________________
5. Draw a red curve or arc on the interior ∠GKI.
6. Draw a blue curve or arc on the interior ∠EKL.

Directions: Use Diagram B to answer questions 7 through 12.

7. Name two sets of perpendicular line segments:____________________
8. Name two sets of skew lines:___________________________________
9. Draw a green curve or arc on the exterior ∠OPU.
10. Draw an orange curve or arc on the interior ∠PUT.
11. Name the vertex of ∠MOP:______________________________________
12. Name two set of parallel line segments:__________________________
13. Describe perpendicular lines: ____________________________________________
______________________________________________________________________
______________________________________________________________________

14. Describe skew lines: ________________________________________________
______________________________________________________________________
______________________________________________________________________

15. Describe a ray: _____________________________________________________
______________________________________________________________________
______________________________________________________________________

16. Describe a vertex: _________________________________________________
______________________________________________________________________
______________________________________________________________________

17. Describe parallel lines: _____________________________________________
______________________________________________________________________
______________________________________________________________________

18. Describe an angle: ________________________________________________
______________________________________________________________________
______________________________________________________________________
Directions: Use Diagram A to answer questions 1 through 6 using correct mathematical symbols and letters.

Diagram A:

1. Name one set of perpendicular line segments: $\overline{DH} \perp \overline{FH}$ Accept other reasonable answers.
2. Name one set of parallel lines: $\overline{BD} \parallel \overline{IL}$
3. Name one set of parallel line segments: $\overline{FH} \parallel \overline{CD}$
4. Name a ray: $\overline{KE}$
5. Draw a red curve or arc on the interior $\angle GKI$. See above.
6. Draw a blue curve or arc on the interior $\angle EKL$. See above.

Directions: Use Diagram B to answer questions 7 through 12.

Answers given are examples - others may be correct also.
7. Name two sets of perpendicular line segments. $\overline{OP} \parallel \overline{PU}$; $\overline{NP} \parallel \overline{NS}$
8. Name two sets of skew lines. $\overline{MN}$ is skew to $\overline{PU}$ and $\overline{TU}$ is skew to $\overline{PN}$
9. Draw a green curve or arc on the exterior $\angle OTP$. See above
10. Draw an orange curve or arc on the interior $\angle PUT$. See above
11. Name the vertex of $\angle MOP$. $O$
12. Name two sets of parallel line segments $\overline{OP} \parallel \overline{TU}$, $\overline{RS} \parallel \overline{MN}$
13. Describe perpendicular lines: *Perpendicular lines are two lines that intersect at a 90 degree angle.*

14. Describe skew lines: *Skew lines are lines that will never intersect and they are not on the same plane.*

15. Describe a ray: *A ray is part of a line that starts at an endpoint and goes on forever in one direction.*

16. Describe a vertex: A vertex is the common endpoint of two rays that form an angle.

17. Describe parallel lines: *Parallel lines are in a plane, two lines that do not intersect and travel equal distant from each other are parallel.*

18. Describe an angle: An angle is a figure formed by two rays with a common endpoint.
Directions: Use Diagram A to answer questions 1 through 6 using correct mathematical symbols and letters.

Diagram A:

1. Name one set of parallel line segments: _______________________
2. Name one set of parallel rays _________________________________
3. Name one set of perpendicular line segments_________________
4. Name a line________________________________
5. Draw a red curve or arc on the interior \( \angle ECJ \).
6. Draw a blue curve or arc on the interior \( \angle ABC \).

Directions: Use Diagram B to answer questions 7 through 12 using correct mathematical symbols and letters.

Diagram B:

7. Name one set of perpendicular line segments.____________________
8. Name one set of skew lines._______________________________
9. Draw a green curve or arc on the exterior \( \angle MNS \).
10. Draw an orange curve or arc on the interior \( \angle OTU \).
11. Name the vertex of \( \angle PNS \).____________________
12. Name one set of parallel line segments__________________________
Directions: Use Diagram A to answer questions 1 through 6 using correct mathematical symbols and letters.

Diagram A:

1. Name one set of parallel line segments: \( \overline{DH} \parallel \overline{CJ} \) Accept reasonable answers.
2. Name one set of parallel rays \( \overrightarrow{BA} \parallel \overrightarrow{CE} \) Accept reasonable answers.
3. Name one set of perpendicular line segments \( \overline{DH} \perp \overline{CJ} \) \( \) 
4. Name a line \( \overrightarrow{BJ} \) 
5. Draw a red curve or arc on the interior \( \angle ECJ \). See above 
6. Draw a blue curve or arc on the interior \( \angle ABC \). See above 

Directions: Use Diagram B to answer questions 7 through 12 using correct mathematical symbols and letters.

Diagram B:

7. Name one set of perpendicular line segments. \( \overline{OP} \perp \overline{PU} \) 
8. Name one set of skew lines. \( \overline{OP} \) skew \( \overline{NS} \) 
9. Draw a green curve or arc on the exterior \( \angle MNS \). 
10. Draw an orange curve or arc on the interior \( \angle OTU \). 
11. Name the vertex of \( \angle PNS \). \( N \) 
12. Name one set of parallel line segments \( \overline{OM} \parallel \overline{PN} \)
Directions: Duplicate the following samples to be used as visual aides for Part Two of the lesson.

1. \( \overrightarrow{AB} \)

2. \( \overrightarrow{CD} \)

3. \( \overrightarrow{OM} \)

4. \( \overrightarrow{YQ} \)

5. \( \overrightarrow{EG} \)

6. \( X \)
Directions: Read the following story. Fill in each blank with a word from the word list. Choose the word that would complete the sentence correctly. Some words will be used more than once.

Word list: parallel, perpendicular, skewed, line, ray, line segment, angle, vertex.

“Hooray! We are going camping!” exclaimed Sarah and Pedro in unison. They excitedly put their gear into their family’s mini-van. Sarah was checking her flashlight to be sure the batteries were working. As she turned it on, it reminded her of her math class earlier that day. She thought that the beam of light was similar to a ____________, because it began at one point and continued forever in one direction. She placed her flashlight in her backpack and sat back to enjoy the ride. As she gazed out the window she noticed the beautiful sky as the sun began to sink below the horizon. Sarah turned her head and followed the horizon line on and on. “That is a good example of a ______”, she thought to herself, “because it goes on and on in both directions.”

They finally arrived at their campsite and rushed to get their gear unloaded and the tent set up for the night. Their family’s tent was a simple triangular prism that meant that each end formed a triangle and each side and the bottom formed a rectangle. The point where the edges came together and formed the corner of the tent is called the ____________. She wanted be sure that the top and the bottom edges were equal distance from each other. As she pulled the ropes tightly and anchored them to the ground, she noticed that the top edge of the tent was ___________ with the bottom edge of each side of the tent.

Pedro had his arms full of sleeping bags as he wobbled toward the tent. He called to his sister, “Please unzip the entrance to the tent so that I can put the sleeping bags inside.” Sarah held the zipper firmly and pulled the zipper making an opening in the front of the tent. The opening formed a 90 degree ____________.

“Hey, Pedro, Look! The zipper is ____________ with the ground and the bottom edge of the front of the tent,” Sarah called as her brother tumbled into the tent spilling sleeping bags all over the tent floor. The zippers on the sleeping bags are now ___________ because they do not intersect; they are not parallel or perpendicular. They put the sleeping bags neatly side by side, making them ____________ to each other. Each zipper on the sleeping bags resembles a ____________ because they each had a beginning and an end.

Directions: After you have completed the blanks, create a definition of each of the words in the word list. You can refer back to the story as often as necessary. Use the blank sheet of paper to sketch the scene and label the words in the word list on your sketch.
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Attachment G
Identifying Geometric Terms Answer Key

Directions: Read the following story. Fill in each blank with a word from the word list. Choose the word that would complete the sentence correctly. Some words will be used more than once.

Word list: parallel, perpendicular, skewed, line, ray, line segment, angle, vertex.

“Hooray! We are going camping!” exclaimed Sarah and Pedro in unison. They excitedly put their gear into their family’s mini-van. Sarah was checking her flashlight to be sure the batteries were working. As she turned it on, it reminded her of her math class earlier that day. She thought that the beam of light was similar to a _ray________, because it began at one point and continued forever in one direction. She placed her flashlight in her backpack and sat back to enjoy the ride. As she gazed out the window she noticed beautiful the sky as the sun began to sink below the horizon. Sarah turned her head and followed the horizon line on and on. “That is a good example of a __line___”, she thought to herself, “because it goes on and on in both directions.”

They finally arrived at their campsite and rushed to get their gear unloaded and the tent set up for the night. Their family’s tent was a simple triangular prism that meant that each end formed a triangle and each side and the bottom formed a rectangle. The point where the edges came together and formed the corner of the tent is called the __vertex_. She wanted be sure that the top and the bottom edges were equal distance from each other. As she pulled the ropes tightly and anchored them to the ground, she noticed that the top edge of the tent was __parallel____ with the bottom edge of each side of the tent. Pedro had his arms full of sleeping bags as he wobbled toward the tent. He called to his sister, “Please unzip the entrance to the tent so that I can put the sleeping bags inside.” Sarah held the zipper firmly and pulled the zipper making an opening in the front of the tent. The opening formed a 90 degree ___angle___.

“Hey, Pedro, Look! The zipper is __perpendicular_____ with the ground and the bottom edge of the front of the tent,” Sarah called as her brother tumbled into the tent spilling sleeping bags all over the tent floor. The zippers on the sleeping bags are now __skewed_____ because they do not intersect; they are not parallel or perpendicular. They put the sleeping bags neatly side by side, making them __parallel____to each other. Each zipper on the sleeping bags resembles a ____line segment______ because they each have a beginning and an end.

Directions: After you have completed the blanks, create a definition of each of the words in the word list. You can refer back to the story as often as necessary. Use the blank sheet of paper to sketch the scene and label the words in the word list on your sketch.
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**Attachment G (Continued)**

**Identifying Geometric Terms Answer Key**

Line: a straight arrangement of points that extends forever in opposite directions

Angle: a figure formed by two rays that have a common endpoint

Line segment: two points on a line and all the points between them

Ray: a part of a line that starts at a point and extends forever in one direction

Perpendicular: the relationship between lines or segments that meet at a right angle

Parallel: Lines, segments or rays that run equal distant apart and never intersect

Skew: lines or segments on different planes that never intersect

Vertex: a point in an angle where the rays meet or the point where the sides of a polygon meet

Accept all reasonable answers. Answers may vary.
Directions: Cut apart the following cards. Students will work in partners. Only one partner will see a card, but both partners should get an opportunity to draw, so do not hand all cards to one person. Other partner will have paper and pencil in order to draw what is described to him by his/her partner. Have the student place a barrier between them such as a book or a folder so that they are unable to see each other’s work.
Directions: Answer the following questions using the cards from page one. When asked to name a figure, use the appropriate symbol and letter.

Card 1:
Name three line segments: __________  __________  ___________.
Name one ray: __________
Name the right angle: __________
Name the vertex of the right angle: __________
What would be the best way to describe the relationship between the ray QV and the line segment QT?
   A. Parallel
   B. Perpendicular
   C. Intersecting
   D. Skew

Card 2:
Name two line segments: __________  __________.
What would be the best way to describe the relationship between the two line segments?
   A. Parallel
   B. Perpendicular
   C. Intersecting
   D. Skew

Card 3:
Name one ray: __________

Card 4:
Name one line: __________
Name the two angles that are not right angles: ____________  __________.

Card 5:
Name one line: __________
Name one ray: __________

Card 6:
Name two lines: __________  __________
If you look at the cube with the gray area as the front of the cube, what is the relationship of the two lines?
   A. Parallel
   B. Perpendicular
   C. Intersecting
   D. Skew
Card 1:
Name three line segments: $\overline{QT}$, $\overline{QS}$, $\overline{ST}$
Name one ray: $\overline{QV}$
Name the right angle: $\angle TQV$
Name the vertex of the right angle: $\angle Q$ or $\angle S$
What would be the best way to describe the relationship between the ray $QV$ and the line segment $QT$?
A. Parallel
B. **Perpendicular**
C. Intersecting
D. Skew

Card 2:
Name two line segments: $\overline{AD}$, $\overline{CB}$
What would be the best way to describe the relationship between the two line segments?
A. Parallel
B. Perpendicular
C. **Intersecting**
D. Skew

Card 3:
Name one ray: $\overline{MN}$

Card 4:
Name one line: $\overline{YQ}$
Name the two angles that are not right angles: $\angle XYZ$, $\angle XZW$

Card 5:
Name one line: $\overline{AB}$
Name one ray: $\overline{EC}$

Card 6:
Name two lines: $\overline{QR}$, $\overline{TZ}$
If you look at the cube with the gray area as the front of the cube, what is the relationship of the two lines?
A. Parallel
B. Perpendicular
C. Intersecting
D. **Skew**