|	Lesson Structure	*Standard:*	*Classroom Instruction that Works* Chapter	**Lesson**
A	**Access Prior Knowledge** 1-3 minutes	*Accessing prior knowledge allows students the neural courtesy to reach into their own memories for information in order to prepare to connect to new ideas and procedures.* **What will you do to get the students to think ahead of time about your lesson subject? Video, short book, brainstorming, etc.**	(6) Nonlinguistic Representations (7) Cooperative Learning (10) Cues, Questions and Advance Organizers	Ask the students if they need math to play video games? https://youtu.be/D7Q84Iy-p0M only play from minute 4:40 to 5:10
G	**Goal** Curriculum Standards Benchmarks Objectives 1-3 minutes	*Stated at the beginning of a lesson and unit, clear targets let students know the direction of the learning and they can begin to track their own progress. Feedback toward this goal helps the student to understand learned progress throughout the instruction.* **What should students KNOW and BE ABLE TO DO at the end of the lesson? How will you determine that they KNOW and are ABLE TO DO?**	(8) Setting)Objectives and Providing Feedback (4) Reinforcing effort and Providing Recognition	I can describe the relationship of angles based on straight angles. **Standards met:4.MD.5 a&b, 4.MD.7** **Standards scored: 4.NBT.4**
N	**New Information** Minutes dependent on the time allotted for lesson	*Presentation of new information (declarative and procedural) through reading, lectures, video, or discussion with strategies that help the learner gather and organize the information such as note taking, graphic organizers, questioning, and practice.* **New information you are teaching – text, vocabulary, concept,**	(3) Summarizing and Note Taking (5) Homework and Practice (11) Teaching Specific Types of Knowledge	Walk the Path activity *This lesson is adapted from a Rich Lehrer lesson* 1. Draw the figure with intersecting lines on the floor and walk the path….stand at the intersection. Look along one line and then turn (in either direction) to look along the other line. Imagine you have eyes in the back of your head. Which angle are you seeing? Which angle is being seen by the eyes on the back of your head? Draw a picture.
A	**Application** Minutes dependent on the time allotted for lesson	*Students use thinking skills with declarative knowledge to construct new ideas and practice to automaticity and strategic use for procedural knowledge.* **Applying learned knowledge in a new way.**	(2) Identifying Similarities and Differences (9) Generating and Testing Hypotheses (10) Cues, Questions and Advance Organizers	2. ∠APB + ∠BPD = half-turn = ∠CPA + ∠APB. Why? Therefore, ∠BPD = ∠CPA . Why? 3. State a Conjecture about angles formed by intersecting lines. Why do you know it is true? 4. Teacher should write on the board what is said after each turn *(see teacher's notes for possible*

				examples). Students' understanding of angles will build as the different angles are given and discussed. **Vocabulary taught: angle, degrees, acute, obtuse, straight, interior angle, exterior angle, supplementary angle, Complementary angle, opposite angle, adjacent angle**
G	**Generalize** 1-3 minutes	*Generalizing completes the cycle of the lesson bringing the learner back to the goal. Using strategies such as nonlinguistic representations, generating questions or self-evaluating allows students to put "the tab on the folder" in order to retain information for longer periods of time.* **Go back to the goal – did we achieve the goal? Did you understand what we were doing? How do I (the teacher) know?**	(8) Setting)Objectives and Providing Feedback (4) Reinforcing effort and Providing Recognition	Restate the goal and score for effort and understanding.

Teacher's Notes:
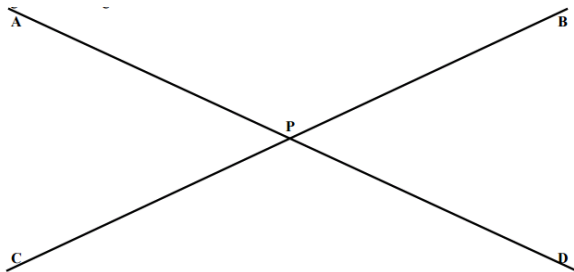
What is an angle? An angle happens at P where two straight segments meet:

Turn in path. If you walk from A to P to B, what do you do at P? Actually, lay it out on the floor and walk it. And/or finger-walk it on paper. What direction do you turn? Do you turn more or less than a ¼- turn? Draw a dotted line to indicate the direction you are looking when you first get to P. Draw an arc with an arrow-head to indicate how you turned, like: This is called a turn-angle or exterior angle. b. Walk both ways. If you now walk on the same path but from B to P to A, what do you do at P? Describe in words and indicate on the drawing. How does this compare to what happen at P when you walked from A to P to B? c. Angle in figure. Draw A-P-B on the
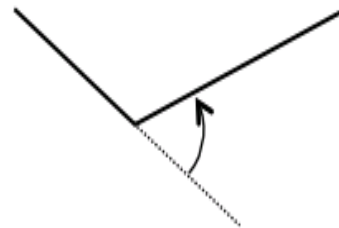
floor. Stand at P and look toward A, then look toward B. What direction do you turn? Do you turn more or less than a ¼-turn? Draw a picture of what you did. What is the relationship this turn and the turn angles at P when walking along A-P-B or B-P-A ? This is called a figure-angle or interior angle or "the angle APB" or in symbols, ∠APB .