Instructor's Name: Morgan Schwarz
Subject: Mathematics
Grade: 7th Grade
Title of Lesson: Similar Shapes

Materials and Resources (including technology):
- SmartBoard (in correspondence with lesson)
- Whiteboards
- Student Notebooks
- Prediction Guide (DO NOW)
- Worksheet

Standard(s) the Lesson will Address: Type out the source, number, and the text of the standard (s) addressed in this lesson
- 7.3.2.1 Describe the properties of similarity, compare geometric figures for similarity, and determine scale factors
- 7.3.2.2 Apply scale factors, length ratios and area ratios to determine side lengths and areas of similar geometric figures

Objective: State the CONDITION, the BEHAVIOR, and the CRITERIA. Label in ( ) the predominant domain of **C** for Cognitive, **A** for Affective, or **P** for Psychomotor. DO NOT make every condition "at the conclusion of the lesson.."
- At the completion of the lesson, given the appropriate direct instruction, students will be able to accurately identify and classify similar figures. (Cognitive)
- During the lesson, students will be able to use similar figures to solve indirect measurement and scale drawing problems. (Cognitive/Psychomotor)

Vocabulary:
   Academic: Language needed by students to do the work in schools.
- Similar
- Congruent

   Content: Language the students need to learn to apply the content.
- Angles
- Sides
- Measurement

- Figures

Anticipatory Set: How will you get the students ready and/or excited to accept instruction?

- As students enter, instruct students to retrieve the paper from the counter and complete the Prediction Guide (Do Now Activity).
  - This will get students thinking about today's lesson while independently working and exploring their own thoughts.

Pre-Assessment Plan (if any): Pre-assessments help you to determine what students already know and bring to the lesson content.

- Prediction Guide (see above)

Input: (SCRIPTED) *Detailed planning: Write plans to a level of depth that would allow another teacher to use the plan to deliver the instruction. Script the learning target(s), transitions and key questions as well as timings.*

1. Instruct students to complete the prediction guide. When they are finished, they may turn it over and wait quietly for others to finish OR finish their homework that is due today if they have not done so yet.
2. Discuss the learning goals for today.
   a. What do you think indirect measurement is?
3. Discuss similar figures and instruct students to write down the definition in their notes section of their notebook.
   a. Review example provided
4. Draw conclusions
   a. What does this mean…?
   b. In simpler terms…
5. Drawing similar figures in the graphic organizer on the board as a class.
   a. Ask for volunteers
6. As a class, go over the next example in the SmartBoard lesson. Use a proportion to solve for the missing side.
7. Example #2- Discuss symbols to find AC and DE.
   a. $12/16 \rightarrow 4/3$ (proportion)
8. Discuss indirect measurement and instruct students to write down the definition in their notes section of their notebook.
9. Go through example #3 together.
   a. Show students the problem ONLY first. Encourage them to draw their own picture. Once they have done so, show the complete picture on the SmartBoard. Do they look similar?
   b. Solve the problem while asking probing questions.
      i. How did you find this?
      ii. Why do you think this is so?
      iii. Tell me how you found that.
10. Instruct students to complete the next problem on their own. They may check their answer with their table partners when they are finished.

  a. Discuss as a class
11. Instruct the students to complete the next problem with the two windows individually. Circle your answer on the whiteboards when you are finished.
12. Hand out the worksheet to all students. Instruct the students to work on this individually until the bell has rung. Once the bell rings, they are dismissed.
  a. Ensure all chairs are pushed in and the classroom is clean/organized

Guided Practice (Formative Assessment):

- Worksheet

Closure: (SCRIPTED)

Complete the worksheet for tomorrow. We will discuss Sierpinski's Triangle tomorrow. IF you need additional help, you are welcome to come in during study hall or after school today. When the bell rings, you are dismissed.

Independent Practice/Summative Assessment: (How will students extend or apply their learning OR demonstrate mastery? If demonstrating mastery, include criteria for evaluation (checklist, rubric, sample, etc).

- Student worksheet
  - 85% or higher on the worksheet
    - Will return with feedback
    - Provide additional assistance, if necessary
    - Re-teach, if necessary

Accommodations & differentiation for learners: (For all practice lesson assume that you have at least one student in each category: attention/focus issue, language processing issue, sensory issues)

- Attention/focus issue: Call upon student often to read directions and answer questions
- Language processing issue: Using visuals along with word problems; reading text aloud
- Sensory issues: Ensure the classroom is quiet during work time

Multiple Intelligences Addressed: Address at least ONE of these intelligences: verbal linguistic, musical/rhythmic, visual/spatial, intrapersonal, logical/mathematical, interpersonal, bodily/kinesthetic, naturalistic