

## The ASSURE Learning Model Lesson

### *Introduction*

The ASSURE Learning Model format helps the teacher determine why they are selecting a specific type of technology for a lesson. When any format is used for creating a lesson plan, the teacher should consider carefully what is included and excluded and use their professionalism to have a complete plan to make sure that their students will be successful in meeting the lessons' objectives. This model ensures that media used will help the students achieve the goals of the lesson.

Some Administrators want detailed lesson plans to include specific questions that will be asked and answers that are anticipated, amount of time spent on each portion of the plan, remediation at every instructional transition and even an alternate ending if the original objective is not met because of unforeseen events occurring. All of these items can fit into the ASSURE model. Other Administrators may prefer less comprehensive lessons, but the ASSURE model can still be used.

This paper will examine the ASSURE model in a sample lesson for ninth grade students within a junior high school building. Figure 1 shows what the acronym ASSURE represents (Smaldino, S., Russell, J., Heinich, R., & Molenda, M., 2005). The format of this lesson used the information presented in the classroom portfolio CD that was included in the textbook. The NETS-S that the students will be using are 1b, 2b, 3a, 3b, and 5a, while the NETS-T for the teacher are 1a, 2a, 2c, 2e, 3a, 3c, and 3d.

Figure 1                      ASSURE Learning Model

A	Analyze learners
S	State objectives
S	Select instructional methods, media, and materials
U	Utilize media and materials
R	Require learner participation
E	Evaluate and revise

### *Analyze learners*

#### *General characteristics.*

The class is a mixed group of ninth graders with approximately half of the students on the free or reduced lunch program, and half of the students are also evenly divided between Hispanic and Afro-Americans. One third live in federally supported housing, many of them being third generation welfare households. The group is evenly split between the sexes, and the ages range from thirteen to sixteen.

Within this population there are least two students with IEPs and at least two others that have not been officially classified. The modifications are given to the teachers at the beginning of each year. For the purpose of this lesson, limited eyesight and favoring kinesthetic learning will be the concerns the teacher will have to deal with.

### *Entry characteristics.*

Students like using computers and have acquired over the time proficient search strategies and word processing skills. The verbal and math skills of these students are on the NCLB scale of two through four. Students are comfortable with building materials, measuring and following multiple step instructions.

### *Learning style.*

The students are eager to learn if they are able to get up and move around. They enjoy using computers for class work and showing off their results to their classmates. The students prefer being assessed on what they can produce and show rather than placing answers on paper.

### *State objectives*

“The ABCD’s of writing objectives are:

- Audience (who are your students?)
- Behavior to be demonstrated
- Conditions under which the behavior will be observed
- Degree to which the learned skills are to be mastered” (Smaldino, S., Russell, J., Heinich, R., & Molenda, M., 2005).

Ninth grade students will discuss in pairs and write notes on what they have read from selected sites on the Internet to determine how to construct a time piece that is accurate to within fifteen minutes a day.

Ninth grade students will use the computer lab to assemble a time measuring device accurate within fifteen minutes through the entire school day using a non-mechanical solar time piece (sundial, sunring) when given the materials to construct one.

### *Select instructional methods, media, and materials*

The backbone of this lesson is the research that has to be done to determine how to construct a time piece. The most effective way to do that is to use the Internet. To aid the students in determining which type of timepiece they will build, a demonstration of how a sundial and sunring works will be done by the teacher.

Although most of the materials necessary to build the time pieces are listed below, some students might problem solve differently than anticipated, so any different material requested would have to be purchased and made available for the next class period.

### *Methods.*

Using a show and tell style of introduction, have several pictures of digital and analog clocks. Ask the students to pick and list in order their favorite three. This will lead to a discussion on what is pleasing to use and if it is functional.

Students will work in pairs during this lesson that will be a mixture of discovery and problem-based learning. Students will determine how they want their product to be assessed after reviewing the scoring rubric for the lesson and will choose the appropriate process to achieve that goal.

How did people tell time before there was electricity? Students will research on the internet how sundials and sunrings were made and used. They will write in their journals any information they think is relevant to the construction of their time piece. A pre-made SmartBoard demonstration on how to use the Geometry Sketchpad software will be available for students to view as well as a pre-made presentation on how to use ruler and compass to draw lines and circles.

After researching, taking notes and determining how to construct their time piece, the remaining time in this lesson will be for the construction of the actual time piece. The anticipated time will be four days with a fifth day to have a show and tell of the final project. A video recording of the projects can be used at this time to increase the students' interest.

*Media type.*

Samples shown will be actual sundials and sunrings. A flashlight representing the sun will be available to show how the time pieces work. In addition to printed pictures, pictures of time pieces will be projected onto the SmartBoard in a slide show format and additional internet sites will be available for the students to review.

*Materials type.*

The following items will need to be present and functioning for the lesson to be successful. Any information from the use of the computer will be printed out beforehand in case there is difficulty in using the equipment on the day of the lesson. Computers, SmartBoard, Geometry Sketchpad, PowerPoint, Word, paper, pens, crayons, markers, scissors, compasses, rulers, glue, tape, and flashlights will be positioned around the room for easy access. A video camera will be used to record the time shown on the sundials and sunrings throughout the day and to record the discovery process the students go through.

*Utilize media and materials*

*Environmental preparation.*

The computer lab is temperature controlled and has enough computers for the students to sit in groups to discuss their designs without interfering with others. There are three separate table areas for group work. The SmartBoard is set up in the center of one wall and is visible for the entire class to see. The materials are divided among the three work stations. All of the equipment has been checked to make sure it is working, and the websites have been verified to still be functioning. The software that will be used is available on all of the computers and it is working.

### *Audience preparation.*

Being able to tell time accurately is necessary to function in the world. Digital clocks might be easier to read than analog clocks. The comfort level we have with an item determines if we use that item. How an object looks influences are choices, especially at this age group.

During the construction stage the students will be asked to maintain a journal that will reflect what they are doing, how they came to the conclusions they made and the trails they did to test the accuracy of their time piece. If groups want to, they can record their answers using the video camera.

The web sites chosen explain the history of sundials and the terminology of the pieces that make up a time piece.

### *Require learner participation*

#### *Initial activities and questions to ask.*

Why is a quarter of an hour different from a quarter of a dollar? When in history was twelve days never recorded? These questions will lead to an examination of how time pieces of different kinds developed over the years.

Students will see a demonstration on how sundials and sunrings work. After examining the introductory material on sundial and sunring pictures, the students will use a prepared Google search engine to research sites on different types and variations of sundials. All materials on the Internet will be printed out beforehand to assure the class can continue if the Internet is not available. A review of the math principles dealing will measuring and constructing angles will be reviewed in learning stations using the Internet, pre-selected math sites and Geometry Sketchpad. Math books and manipulatives will be available if the students prefer that style of learning rather than the sites available in the arranged Google search engine.

Students will review the math needed for the construction of their sundials while they are reading about the history and types of sundials. The students can use the supplies provided or the software previously listed to create their sundials.

#### *Follow-up activities and questions to ask.*

Students can examine other methods of telling time, such as water or sand clocks. A sundial can be constructed on the lawn of the school. If time were to be viewed different than the current twenty four hour day, what could it look like? What would the new time be based on? How did wars end when communication took weeks to reach all of the armies involved?

#### *Activities to do.*

Students will be introduced to the issue that time is relative and man made. How does time affect them? Discuss time zones, and the International Date Line. How far does the sun travel in one hour? How can we measure the traveling of the sun in increments?

Students will determine the answers to these questions and then use the answers to construct a sundial or sunring using the materials provided.

*Follow-up activities to do.*

Students will use the knowledge they gained from researching how to construct a sundial or sunring and explain why they used certain items in their creation. For the students that enjoyed drawing and building, a discussion of labyrinths could lead to constructing a maze on the school yard.

*Skills to practice.*

Measuring of lengths and angles is a necessity to accurately construct a time piece. There will be materials to manipulate on tables and on the SmartBoard to review and practice these skills prior to constructing their own sundials.

*Follow-up skills to practice.*

In addition to the manipulative skills already mentioned, communication is a skill that will always be practiced in the class room setting. Students will be asked to share how they did their research on the Internet. The method of communication can vary from written to oral, from PowerPoint to video.

*Evaluate and Revision Notes*

*Learner evaluation plan.*

A scoring rubric will be given the students prior to the project showing how the time piece and class work will be evaluated. The notes relating to sundials need to correspond to the final project and the actual time piece will be scored on accuracy, beauty and ease of reading. Students that wish to do a presentation on how they constructed their time piece can use that to raise their grade if the time piece is not accurate to their satisfaction.

*Evaluation of learner achievement.*

It is in this section that the teacher considers the students' "performance on authentic assessments, written examinations, and in terms of process, product or attitude" (Smaldino, S., Russell, J., Heinich, R., & Molenda, M., 2005). In this lesson the area of concern would be the attitude of the level of accuracy obtained by the students. Some students might only aim for the minimum while others will reach for perfection. This discrepancy in the attitude towards success will lead to future class discussions on how to improve one's performance and how it affects their future.

*Methods and media evaluation.*

An evaluation of the methods would include an examination of how many students reached the objective and were the students actively engaged. The teacher should constantly monitor the progress of the students and have the students do occasional checks of the projects to see if they are proceeding in an accurate direction to achieve success. After the project is finished, asking the students for feedback on what they learned from the project is essential and will help the teacher make revisions for the future.

At the completion of the evaluation process, notes should be made for any changes needed for the future use of the lesson.

### *Summary*

The ASSURE model is very student oriented. If each section is followed, the lesson created is geared towards the students' success in reaching the objective. The sections are open enough for a teacher to include additional information that might be favored by themselves or their administrators.

## References

Smaldino, S., Russell, J., Heinich, R., & Molenda, M. (2005). *Instructional technology and media for learning*. Upper Saddle River, New Jersey: Pearson Merrill Prentice Hall.