

IT and Me Works

Lesson Plan for Programming Strand

Topic: Introduction to Programming
Teacher: Karen Olmstead

Subject: IT & Me Works
Grade: 9th

Time: ½ hour to 1 hour

Objectives: At the end of this lesson students will:

- Appreciate the importance of following directions.
- Appreciate the difficulty of giving precise directions.

Standards:

- Students will recognize patterns and describe and represent relations and functions.
- Students will demonstrate the interest and ability to speak purposefully and articulately, as well as listen and view attentively and critically.

Setting: Classroom.

Materials: 4 or 5 drawings of different geometric designs.

Note –This activity can be used in introductory programming using any programming language. It should take place before any programming is started.

Teacher's Role: Prepare drawings of different geometric designs, each on a separate sheet of paper. Make enough copies of these drawings to give one set to each pair of students in the class.

- Have the students break up into pairs.
- Have the students sit back-to-back.
- Give one of the geometric drawings to one student in each pair and a blank sheet of paper to the other student.
- The student holding the design must give directions on how to draw the figures to the other student in the pair. This student will draw according to the directions.
- Have the students compare the original drawing with the new drawing and discuss ways that the directions could have been improved.
- Give the next drawing to the student who did not have the drawing the first time around and repeat the process.

This lesson plan can be expanded to include having the students write and debug a simple program in the language being taught.

School to Career Connection: Have a programmer visit the class and discuss how important communication skills are when programming.

Employability: Communication skills

Adapted from a plan by Daniel Swomley, Hanover School, Colorado Springs, CO.