

Understanding Instructions With And-or Lesson Plan: Class 03 / ALG / 08



Overall goal of the lesson: Children understand AND/OR conditionals

- Does given input meet given conditional?
- Predict outcome given inputs and conditionals

Prior knowledge required: Simple conditional, familiarity with a card deck

Material Required:

Physical: A deck of cards and / or set of number cards in red and black **Electronic:** PPT – Understanding Instructions with AND / OR conditionals

Procedure Summary:

- 1. There are two PPTs one for AND operator and one for the OR operator. Please conduct these PPTs in two classes.
- 2. Review conditionals
- 3. Play card games
- 4. Distribute the worksheet
- 5. Discuss worksheet

Procedure Details:

- 1. Slide 1 Review simple conditional you may use your own examples
 - Introduce the concept with a 'well-known' example
 - Slide 2 define conditional spend time on this until they understand the idea and are able to give examples of their own in each example they should be able to identify the condition and the reward
 - Note: Depending on the composition of the class, change the examples e.g., if it is only girls in the class you cannot use the is-a-boy / is-a-girl conditionals
 - Weave in one example where outcome of the condition is not necessarily a 'reward' e.g., If you come late to class you will have to see the principal.
- 2. For the game if you are going to use cards revise the suits. Or else use card with numbers written on them in red or black.
 - Play the first game a few times until they get it perfectly
 - Then get the children to write the conditionals for the game
- 3. Before starting next game, revise odd and even numbers make sure the children know what they are
 - Explain the rules the children will understand 'and' intuitively don't try to explain it right away
 - Play a few times till the children answer easily
 - Now explain the concept of 'and': understanding the conditionals is an important slide
- 4. Now change the rules again
 - OR is not as intuitive as AND give children time to figure it out
 - Play the game a few times and write the conditionals
 - Now explain the concept of OR
- 5. Now explain the difference between AND and OR
 - Even if they have not got the difference they should be able to play the games because they are intuitive! If possible use pictures for the games.
- 6. Explain the use of conditionals in algorithms
 - Explain that even a game is like an algorithm for a computer
 - Try the two games with the children
- 7. Recap
- 8. Distribute & discuss worksheet