

- or Do a handstand
- Start counting right away.
- If the students succeed, point out right away that they succeeded, so they *do* get the reward.
- Otherwise, point out that they were not completely quiet for a full thirty seconds, so they *do not* get the reward.
- Ask the class "What was the *condition* of the reward?"
 - The condition was *IF* you were quiet for 30 seconds
 - If you were, the condition would be true, and you would get the reward.
 - If you weren't, the condition would be false, so the reward would not apply.
 - Can we come up with another conditional?
 - If you can guess my age correctly, the class can give you applause.
 - If I know an answer, I can raise my hand.
 - What examples can you come up with?
- Sometimes, we want to have an extra condition, in case the "IF" statement is not true.
 - This extra condition is called an "ELSE" statement
 - When the "IF" condition isn't met, we can look at the "ELSE" for what to do
 - Example: IF I draw a 7, everybody claps. Or ELSE, everyone says "Awwwwwwwwe."
 - Let's try it. (Draw a card and see if your class reacts appropriately.)
 - Ask the class to analyze what just happened.
 - What was the IF?
 - What was the ELSE?
 - Which condition was met?
 - Believe it or not, we have even one more option.
 - What if I wanted you to clap if I draw a 7, or else if I draw something less than seven you say "YAY," or else you say "Awwwwwwwwe"?
 - This is why we have the terms If, Else If, and Else.
 - If is the first condition
 - Else-if gets looked at only if the "If" isn't true.
 - Else gets looked at only if nothing before it is true.

Now let's play a game.

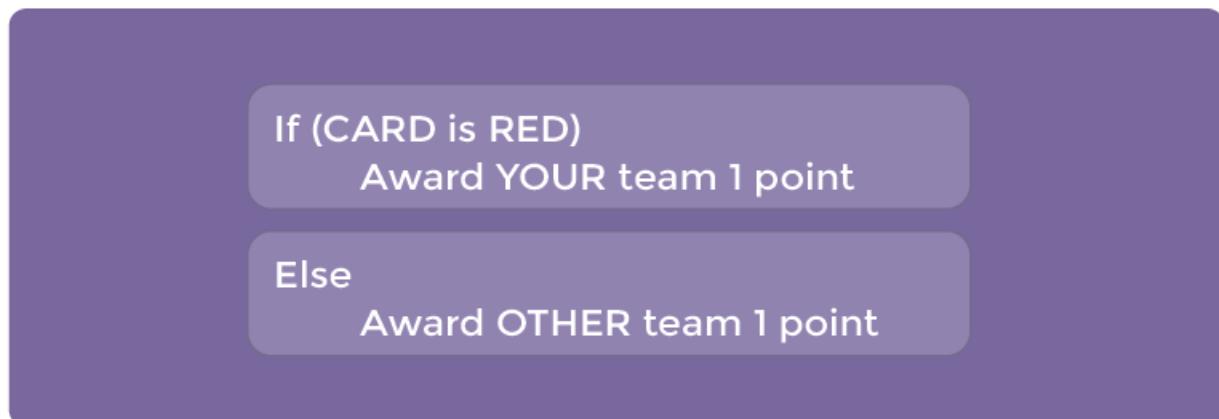
ACTIVITIES: (20 MIN)

4) Conditionals with Cards

Directions:

- 1) Create a few programs with your class that depend on things like a card's suit, color, or value to award or subtract points. You can write the program as an algorithm, pseudocode, or actual code.

Here is a sample algorithm:



Here is a sample of the same program in pseudocode:

```
If (card.color == RED) {
    points.yours = points.yours + 1;
}

Else {
    points.other = points.other + 1;
}
```

- 2) Decide how you want to split your class into teams.
- 3) Each team should have a pile of cards (at least as many cards as team members) nearby.
- 4) Put one of your "Programs" up on the board for all to see.
- 5) Have the teams take turns drawing cards and following the program to see how many points they score in each round.
- 6) Play several times with several different programs to help the students really understand conditionals.

Once the class has had some practice, you can encourage students to **nest** conditionals inside one another:

```
If (CARD is RED)
    Award YOUR team 1 point
Else
    If ( CARD is higher than 9)
        Award OTHER team 1 point
    Else
        Award YOUR team the same
        number of points on the card
```

Here is the same program in pseudocode:

```

If (card.color == RED) {
    points.yours = points.yours + 1;
}

Else {
    If ( card.value > 9) {
        points.other = points.other + 1;
    }

    Else {
        points.yours = points.yours + card.value;
    }
}

```

WRAP-UP (5 MIN)

5) Flash Chat: What did we learn?

- If you were going to code this up in Blockly, what would you need to add around your conditionals to let the code run more than one time?
- What other things do you do during the day under certain conditions?
- If you are supposed to do something when the value of a card is more than 5, and you draw a 5, do you meet that condition?
- Notice that conditions are either "True" or "False." There is no assessment of a condition that evaluates to "Banana."
- When you need to meet several combinations of conditions, we can use something called "nested conditionals."
 - What do you think that means?
 - Can you give an example of where we saw that during the game?
- What part of that game did you like the best?

LESSON TIP

Flash Chat questions are intended to spark big-picture thinking about how the lesson relates to the greater world and the students' greater future. Use your knowledge of your classroom to decide if you want to discuss these as a class, in groups, or with an elbow partner.

6) Vocab Shmocab

- Which one of these definitions did we learn a word for today?

"Adding additional space to the beginning of a line of text"

"A combination of yellow and green"

"Statements that only run under certain conditions"

...and what is the word that we learned?

ASSESSMENT (5 MIN)

7) Conditionals with Cards Assessment