

Recycling Lesson Plan

This will be done in 1st grade

Instructional Objective After playing the *Recycle* card game three or more times, players will be able to name all the recyclable items used in the *Recycle* card game.

Learners/Context The *Recycle* card game is designed for ages 8 - 12.

It would be used as part of a class on Ecology. The teacher or facilitator would introduce the idea of recycling, the value of such a practice, and how each and every individual needs to take responsibility for recycling all they can. After the introduction, the card game could be used to familiarize the students with the various items that are normally discarded in the garbage which, however, could be recycled. After playing the game several times, the teacher or facilitator would debrief the students to find out how many items they remember from the game. Incorporated into the debriefing stage, the teacher could talk about how each item is recycled and what effect not recycling that item has on the environment.

Rationale The card game is a fun way to familiarize young people with recyclable items. It heightens awareness by exposing the students to different recyclable materials. It also reinforces the concept of value in recycling by awarding points for accumulating a set of matching cards, and setting an arbitrary point total as the means for determining the winner. The hidden message here is that you are a winner if you recycle. Even for the non-winners there is the association of points for recycling as they get to claim their points at the end of each hand. (More about that in the rules.)

Rules The *Recycle* game is played like Fish. Fish is a game where players ask each other for cards that they need to make 2, 3, or 4 of a kind. If the other players do not have the card in question, the person has to go "Fish" for the card from the remaining undealt cards in the middle of the table. Once three or four of the same value cards are obtained, the cards can be claimed by laying them down face up on the table. The first person to get rid of all their cards wins that hand.

The difference in the *Recycle* game is that points are awarded for laying down 3 or 4 of the same recyclable. Score is kept and a winner is determined by being the first person to reach a certain number of points.

The Players The game can be played with two to four players.

The Dealer The first person to deal is determined by one person shuffling the deck and, starting with the person to the left, turning over one card or each person until a Mother Earth card is turned over. That is the first person to deal. The next person to deal will be the player to the left, and so on.

The Deal The dealer shuffles the cards and begins giving out one card at a time (face down) to each player until everyone has seven cards. The remaining cards are put in the center of table face down. This is where players will go to draw more cards if no one has the card asked for.

The Play Each player should arrange their hands by putting all the matching recyclables together. Play starts with the first person to the left of the dealer asking the other players: "Does anyone have any Newspapers (or any other recyclable) to recycle?" Any player having one or more of that card must give the card to the asker. (A player may NOT ask for a Mother Earth or a Toxic Waste card.) Each player who does not have the card asked for should respond: "No, check the garbage pile." When none of the other players have the requested card, the asker must go the remaining undealt cards to pick a card. Then the next person asks for a card, and so forth.

When a player gets 3 or 4 of one recyclable, they can lay them down only while it is their turn. A player's turn begins when the previous player is either forced to pick from the undealt cards or signals that they don't want to make a lay down. When only 3 of a kind are laid down by a player, anyone holding the fourth card of that kind may lay it down in front of themselves and claim points for it. See "The Score" below. The Mother Earth cards can be used as wild cards. Only one (1) Mother Earth card can be used with two (2) of a kind to make three (3) of a kind, or with three (3) of a kind to make four (4) of a kind. You cannot use two (2) Mother Earth cards with two (2) recyclables to make four of a kind. However, anyone having the matching recyclable card may exchange it for the Mother Earth card in the letdowns.

Mother Earth cards can also be used to "neutralize" Toxic Waste cards. Toxic Waste cards are not desirable cards to have. The only way to get rid of a Toxic Waste card is by "neutralizing" it with one (1) Mother Earth card. The player must then pick two (2) cards from the pile to replace the two cards used in "neutralizing" the Toxic Waste. Again, however, any other player with a Toxic Waste card can exchange it for the Mother Earth card when it is their turn without having to pick another card from the pile.

Once a player has gone out, the other players can make lay downs of their own provided they have three (3) or four (4) of a kind. They can also make plays on the person who has gone out by playing a matching card on any of the first person to go out groupings. Mother Earth cards may only be used to complete a grouping, or neutralize a toxic waste card, by the person laying down a grouping. It may not be used to complete a grouping of someone else's lay down.

The Score Players **score** points for the following:

- * 15 points for each three (3) of a kind
- * 20 points for each four (4) of a kind
- * 5 points for each single card played on an opponent's laydown.

Players **lose** points for the following:

- * 5 points for each recyclable left in the hand.
- * 10 points for each Mother Earth card left in the hand.
- * 25 points for each Toxic Waste card that has not been neutralized
- * Players get 0 points for Toxic Waste laydowns.

The Winner The first person to reach 500 or more points is the winner. If more than one person reaches or goes over 500 points, the person with the most points wins.

Card Design

Deck Design The deck consists of 52 cards. There are four of each type of recyclables: Newspaper, Cans, Glass, Metal, Magazines, Plastic, Styrofoam, Junk Mail, Rubber, Computer Paper, and Used Car Oil for a total of 44 cards, plus four (4) Mother Earth and four (4) Toxic Waste cards.

Design Process First I thought about what the subject matter would be. After settling in on recycling, I began evaluating possible formats: rummy, solitaire, etc. I chose a rummy format because it seemed to me to be the best way get the message across: Collect, save, and reclaim recyclable materials.

The idea of the Toxic Waste card came a little later in the design processes. I was looking to bring in an avoidance factor into the game, something that would heighten interest. I struggled a bit on how a person would be able to get rid of the Toxic Waste card. I hit on the idea about a Mother Earth card that would serve as a neutralizer to the Toxic Waste card. Then the idea about using Mother Earth cards as a wild card seemed to fit right in. But there was still the problem of not giving people ample opportunity to neutralize the Toxic Waste card. That's when the idea came to allow anyone, when it was their turn, to exchange a matching recyclable for the Mother Earth card in anyone's played cards. This works because it adds some strategy to the game.

I'm not sure that any ideas were actually thrown out, but rather it appeared to be a process of refining ideas that happened to come up. For example, the Toxic Waste card idea. I wanted to use the concept, but then I became concerned that the player could get one, or more, and not be able to get rid of them. So I thought about it. Getting three or four Toxic Waste cards might not give the players enough opportunity to discard them, especially since they could not ask for them. So when I came up with the Mother Earth card idea, it increased the likelihood of completing a grouping. But then I thought, what if the person only gets one Toxic Waste card? How can it be discarded? I came up with the idea of a one for one neutralizing scheme. This gave all players a chance to get rid of the Toxic Waste card and put a Mother Earth card out on the board where it could be traded for a Toxic Waste card. This seemed to be enough ways to get rid of the Toxic Waste card.

*Lesson plan adapted from Charles Hoskowitz

<http://edweb.sdsu.edu/courses/edtec670/Cardboard/Card/R/recycle.html>