Mobile Project X

Target Audience: All Leaders

Purpose

To help leaders and individuals analyze and develop critical thinking, leadership, and followership skills through time-constrained scenario-based exercises.

Description

This PACEsetter has taken leadership scenarios traditionally seen in the professional military education (PME) environment and has scaled them down into a portable version for use in practically any venue. Each scenario is designed to take participants through a complex problem solving scenario that can only be resolved through the application of critical thinking skills as well as various leadership/followership concepts—sometimes minor physical requirements are involved.

The scenarios are designed in such a way that they require very minimal, low-to-no-cost resources to execute. Most of the time these scenarios can be accomplished using common household items or items easily found within every organization or mission partners across the installation.

Employ

Leaders must first understand any gaps in critical thinking, leadership and followership skills of the people who will be trying to solve these scenarios. This will help in how certain roles can be assigned within each scenario.

Select scenarios based on the availability of resources each activity requires. Be creative as you need to be to obtain these resources to include requesting external organizations. For example, stepping stones can be simulated by using tape, rope, or sticks on the floor or ground. Old paint cans can have multiple uses such as simulated steps, a rolling point, an untouchable boundary or many other options. Lumber, rope, empty 5 gallon buckets, and many other items can often be requested from other mission partners. Many of the scenarios are simply role playing table top exercises and require minimal to no resources at all.

The leader for each scenario is charged with leading the team through the solution to the scenario as well as all subordinate tasks such as planning, directing, delegating, etc. Although successfully completing the scenario enhances the team's ability to receive feedback, the true objective in these scenarios is to evaluate the leader's ability to assess the scenario, maintain control of the team, and display key leadership attributes in a stressful, time-constrained environment as well as followership traits of team participants.

Some factors to assess regarding the leader include confidence, decision making ability, credibility and communication, delegation, flexibility, poise and focus. The leader should promote information flow, motivate and encourage team members as well as steer teambuilding and participation. Factors to consider for participants (followers) include solution contribution, motivation, following directions, supporting unpopular decisions and other followership related areas.

While there is a baseline instruction and application for employing each activity, scenario controllers are encouraged to experiment with the resources provided, given guidance and other variables in order to tailor the experience to the capabilities of the participants.

Any suggestions for improvement to the attached scenarios or to submit ideas for new

Star Quest Scenario

Hand this page to the team leader

While fleeing from a battle with the First Order, your Rebel cruiser's warp drive failed and had to be ejected. Fortunately, your ship's scanners detected a beryllium sphere (warp core replacement) that can be used to replace the ejected warp drive on the unchartered planet you are currently orbiting.

General Leia Organa has asked you, General Solo to lead a team of Rebel forces to retrieve the beryllium sphere as quickly as possible because the First Order armada is in hot pursuit and she fears Kylo Ren will be using "The Force" to locate you.

Your team consists of yourself (Han Solo), Chewbacca, Rey, Fin, & two other Rebel members.

You arrived on the planet surface and have located the beryllium sphere and were quickly trying to retrieve it when the two team members suddenly vaporized when trying to cross what appeared to be a shallow (1" deep) puddle of water.

There is an unscalable rocky cliff to the left of this "puddle" and a treacherous drop off to the right. There is an apparent stepping stone path across the puddle that your vaporized team members failed to use in their haste.

The only way to retrieve the beryllium sphere is across the puddle and then back to your ship. The sphere is too heavy to be lifted and must be rolled by at least two members due to its heavy weight.

Additionally, you have just received word that the First Order is only 40 minutes away.

Special Notes:

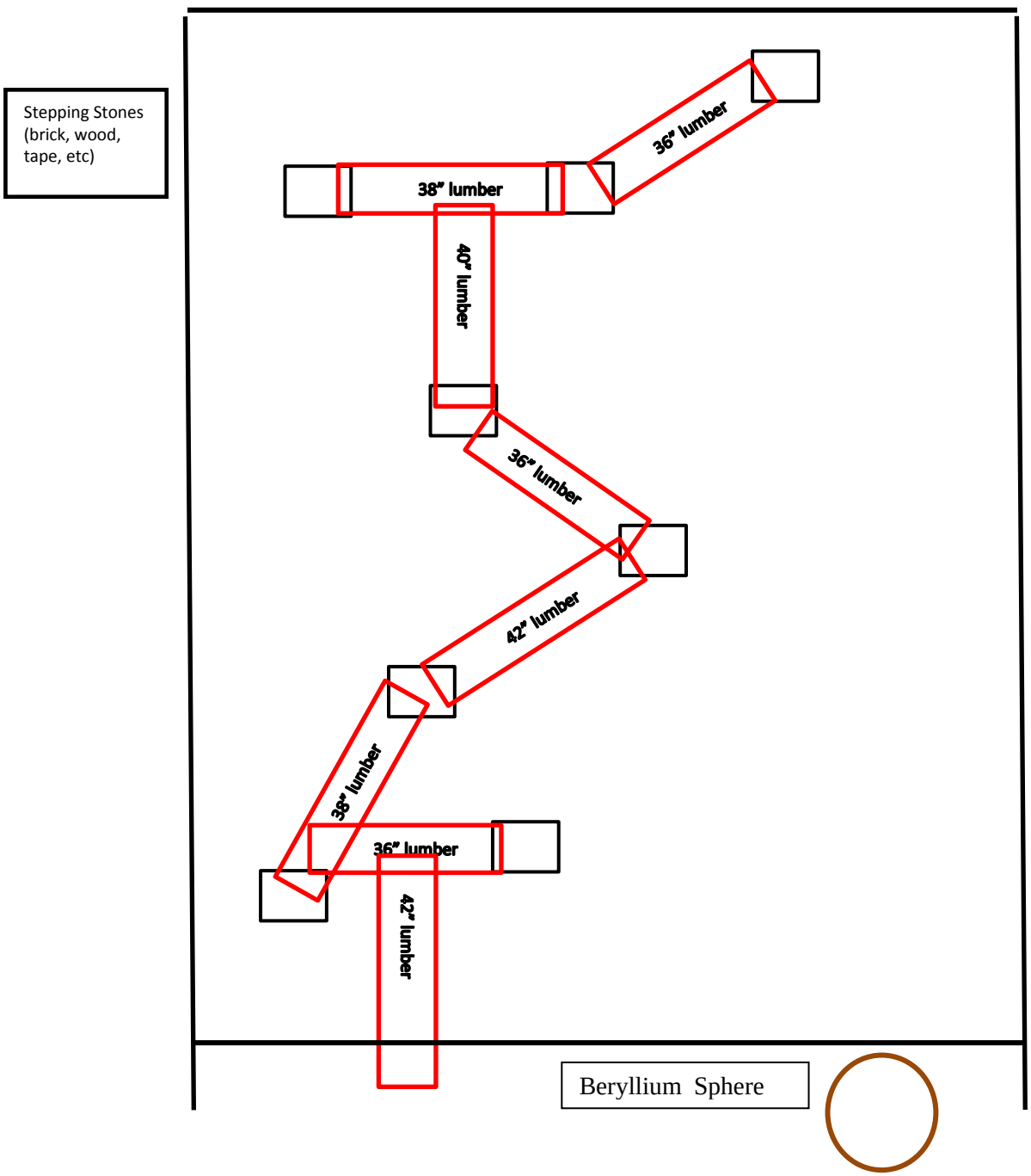
- Chewbacca can only communicate to the rest of the team thru Gen Solo. When Chewy is separated from Gen Solo, he cannot communicate with the rest of the team verbally.
- Anything that is placed within the puddle of water is stuck in place and may not be moved again.

Safety:

No jumping from/to the stones along the path to the sphere for risk of over/under estimating the distance and you become vaporized.
Penalties: each penalty will incur a 30 second time runoff where no action, communications or other activities, may be performed.

Star Quest Possible Solution

Resources required:
3 – 2x4 lumber 36” length
2 – 2x4 lumber 38” length
1 – 2x4 lumber 40” length
2 – 2x4 lumber 42” length
8 – stepping stones (size big enough to place ends of lumber on)
1 – Yoga ball or similar large rollable object
Miscellaneous distractor objects



Special Notes to Scenario Controllers

The above diagram shows one of many possible solutions. The key is to set up the scenario and then give the resources available to the participants and then let them try to solve the problem without any interference, guidance, clues, etc… even though they will ask you for more information. It's also important to give them enough time to solve the problem because if you give them too little time, they will see it as an unachievable task and creativity and problem solving will come to an end. It is recommended to start around 40 minutes and scale up or down depending on the age group.

You can also vary the amount of resources you give them depending on the age group(s) you are working with. For example, you could limit the number of pieces of lumber to 3 for high school aged and higher participants but for 8-12 year olds, you may want to give them the full compliment. Experiment and see what works.

It is important to layout the stepping stones using the lumber lengths to determine the distance between each stepping point. You want the lumber to barely be able to reach the stepping point without becoming unstable. The stepping stones can be anything suitable for the task at hand. Bricks, old hard back books, prefabricated stones, other pieces of lumber can be used to represent these stepping points. If you're not able to find suitable stepping stones then a last resort would be to use tape or string on the floor to simulate the stones.

The primary solution for moving the Beryllium Sphere is for participants to roll it back across the same path they used to reach it because it is simulated to be too heavy to lift. However, I've had participants use a distractor object to complete the scenario. Again, play with the scenario to see how participants respond.

It is good to throw in some distractor resources as well to see if the team can creatively work them into the solution or do they waste time theorizing how to use them. Some distractors include but are not limited to a roll of duct tape, 50' of nylon rope, gloves, multipurpose tool (leatherman), and extra lumber pieces that are too short to reach the stepping stones. Be creative and add anything you think that could be a good distractor. You will be surprised at how creative some people can be at using seemingly worthless resources.

You can also change the names of the characters for the scenario to something that is more relevant. The Star Wars theme was used simply to get people into the role playing mindset. Be creative and use any theme or characters you think will help enhance the exercise.

If you have any suggestions to help make this scenario better or have your own scenario you'd like to contribute, please contact us at aetc.pace.projectmgtworkflow@us.af.mil.

Race to the Nuke Crisis Scenario

Hand this page to the team leader

A rogue nation has recently developed a long range missile capable of carrying a nuclear warhead that sources believe is targeted at a large metropolitan city within the US. The rogue nation had acquired the last element, weapons grade plutonium, and were preparing to process it for weaponization. Fortunately, coalition special forces were able to raid and remove the plutonium from its storage location and were on their way back from the mission when their aircraft was shot down over the rogue nation's territory.

Your team is enroute to home station after a successfully completed mission and have been diverted to recover the plutonium and any crash survivors and return to friendly territory before the rogue nation beats you to the scene. At all costs, the plutonium must not fall back into the rogue nation's hands.

The only materials available to you will be what you can scavenge at the scene and the contents of this bag.

Intelligence reports that the rogue nation's assault team is only 45 minutes away. Intelligence has also learned that the plutonium has somehow been displaced from its lead-lined container and is emitting lethal levels of radiation if anyone approaches within 3 feet. There also appears to be one survivor but his/her condition is undetermined.

Upon arrival you observe:

- One survivor trapped under about 8K pounds of aircraft debris but conscious and in extreme pain.

- An empty 800 pound lead container and lid about 15 meters away (plutonium carry container).

- Scattered aircraft wreckage, some still burning

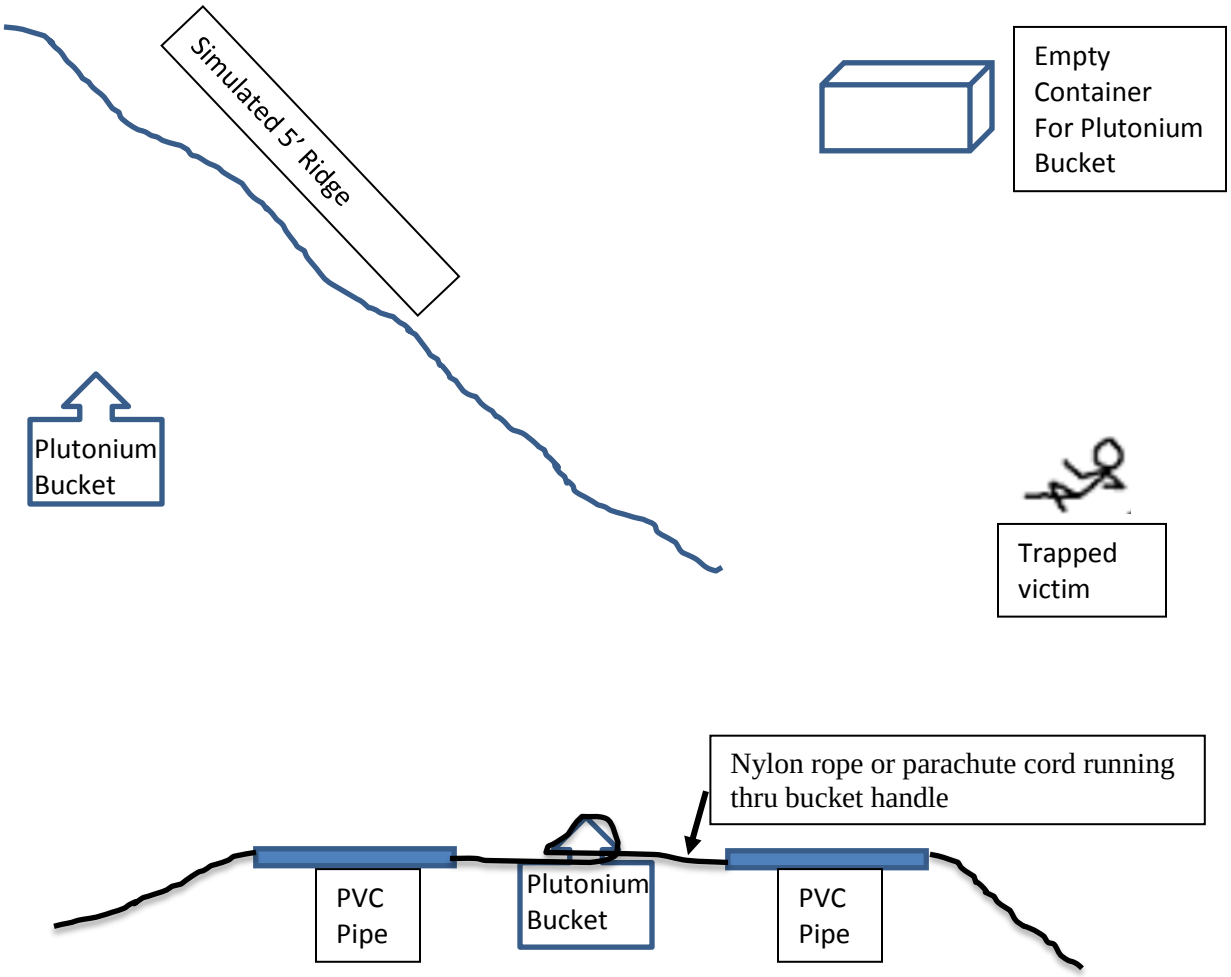
- Shattered pieces of trees and branches

Your extraction team will pick your team up in exactly 45 minutes.

Special notes:

- The terrain is very rough and so the plutonium cannot be pushed along the surface. It must be lifted from the ground.
- If anyone gets within 3 feet of the unshielded plutonium, the entire team will be given a 30 second penalty where no action, communications or other activities, may be performed.

Race to the Nuke Crisis Scene Layout



Resources required:
1 - Mop bucket with handle and filled with rocks or other heavy objects to simulate a very heavy plutonium source (40 - 50 lbs is preferable but alternate weight is OK)
1 – Empty container large enough to fit the mop bucket in
Gym bag or other similar bag with the following contents:

- Approximately 50' of parachute cord
- Approximately 50' of nylon rope
- 2K lb simulated jack (clearly marked with 2K lb limit)
- Multipurpose tool
- Tape measure
- 2 pairs of gloves
- Roll of duct tape

2 – Pieces of PVC pipe approximately 6' in length to simulate broken bamboo tree branches
1 – Volunteer to act as the victim trapped under 8K of debris

Possible Solutions

Thread the rope or cord through one piece of the pipe. Leave enough rope hanging out the end of the pipe so that it can be threaded through the plutonium bucket handle. Use the duct tape as necessary to facilitate this action. Use other pipe to lift handle of plutonium bucket until rope can be grabbed with reverse sided duct tape to grab ahold of rope/cord. Once rope/cord is safely 3' away from plutonium bucket, thread the rope through the remaining pipe. Graphic above gives example of what this will look like. Once this is complete, the bucket can then be lifted over the simulated 5' ridge and placed into the lead lined container which is approximately 35'-40' away. Note: If the bucket is sufficiently heavy enough only using the rope will be very difficult if not impossible. This is where the PVC pipe comes in handy.

The trapped victim and other materials are distractors. The weight of the debris is too much for the 2K jack to lift. The team will have to either amputate the team members legs to free him/her (they don't have the resources or time to do this) or let the team member die in order for the mission to be completed successfully. Note: If having young children perform this scenario, you may want to avoid having them make the tough decision of letting someone die.

Some will try to duct tape the ends of the pipe together to achieve the same effect. This is another possible solution to lifting the plutonium bucket. However, if the bucket is heavy enough, the duct tape will not be sufficient to do this. Keep in mind that people will get creative in their solutions to this problem so avoid interfering with their efforts. Sit back and watch to see what happens. Be prepared to "kill" participants if they frequently violate the 3 foot radiation zone around the bucket.

Mine Field Trust Exercise

This trust exercise requires some setting up before it can be executed. It also requires a large, open area such as a room without furniture or an empty parking lot. The leader must distribute "mines," which they place haphazardly around the area. These “mines” can be balls, bowling pins, cones, etc. This exercise gives coworkers a chance to work on their relationships and trust issues, which is why they are paired into teams of two. One team member will be blindfolded and cannot talk and the other can see and talk, but cannot enter the field or touch their blindfolded teammate. The challenge requires each blind-folded person to walk from one side of the field to the other, avoiding the mines by listening to the verbal instructions of their partners. Penalties can be put in place for each time a blindfolded person hits a mine, but the real idea behind the game is to get the team members to trust their partner’s directions and to teach them to communicate in a more effective way.

The Paper Tower

This planning exercise is very simplistic in its approach, but it teaches participants the importance of planning, timing, and thinking on their feet. Each participant is given a single sheet of paper and told that it’s absolutely necessary that they construct the tallest free-standing structure in just five minutes using no other materials. After the allotted time has expired, a review of the structures, a discussion can be had concerning who planned out their structure, who ran out of time, and what could be done differently next time.

Toxic Waste

Resources Requirement: 2 x toxic waste receptacles (2 standard size buckets), 1 x rope to create a circle for the radiation zone (or Hula hoops), 1 x bungee cord loop, 8 x bungee cords, 8 x tennis balls or use water (to represent toxic waste), Blindfolds (optional), Red herring objects (optional)

Setup: Use the rope (or Hula hoops) to create a circle on the ground to represent the toxic waste radiation zone. The larger the radiation zone, the more difficult the activity.

Place the first bucket in the center of the radiation zone and fill it with water or tennis balls to represent the toxic waste.

Place the second “neutralization” bucket approximately 30 to 50 feet away. The greater the distance, the more difficult the activity.

Put all other equipment (i.e., bungee, cords, and red herring objects (optional)) in a pile near the circle.

Directions: The challenge is for the group to work out how to transfer the toxic waste from one bucket into the other bucket where it will be "neutralized", using only the equipment provided and within a time frame. The waste will blow up and cause significant damage after 20 minutes if it is not neutralized.

Anyone who ventures into the radiation zone will suffer injury and possibly even death, and spillage will create partial death and destruction. Therefore, the group should aim to save the world and do so without injury to any group members.

The circle represents the radiation zone emanating from the toxic waste in the bucket. Emphasize that everyone must maintain a distance (circle radius) from the toxic waste wherever it goes, otherwise they will suffer severe injury, such as loss of a limb or even death. This includes reaching over the circle into the toxic waste "zone" which extends from the circle straight up to the sky (if outdoors) or ceiling (if indoors).

Give the group some planning time with no action e.g. 5 mins. Then start the clock and indicate it is time for action, e.g., 15 or 20 mins.

Exercise Controller Notes: Toxic Waste is a moderately difficult exercise and most groups will benefit from some coaching along the way.

The solution involves attaching the bungee cords to the bungee loop, then guiding the bungee loop around the bucket so as to "grab" the toxic waste bucket. Then with everyone pulling on their cord and with good coordination and care, the toxic waste bucket can be lifted, moved and tipped into the empty neutralizing bucket.

If someone breaches the toxic waste zone, indicated by the circle, enforce an appropriate penalty e.g., loss of limbs (hand behind back) or function (e.g., blindfolds if a head enters the zone) that lasts for the rest of the game. If a whole person enters the zone, they die and must then sit out for the rest of the activity.

If the group struggles to work out what to do, freeze the action and help them discuss.

If the group spills the waste entirely, make a big deal about catastrophic failure (everyone dies), invite them to discuss what went wrong and how they can do better, then refill the container and let them have another go.

Ideas for varying the level difficulty of the activity:

Adjust timeframe

Adjust distance between the buckets

Include obstacles between the buckets

Include red herring objects in available equipment

Processing Ideas: There are invariably plenty of key communications and decisions during the exercise that provide for fruitful debriefing.

The exercise will tend to naturally expose processes and issues related to many aspects of teamwork, including cooperation, communication, trust, empowerment, risk-taking, support, problem-solving, decision-making, and leadership.

Can be videoed for subsequent analysis and debriefing.

How successful was the group? e.g., consider:

How long did it take?

Was there any spillage?

Were there any injuries? (Often in the euphoria of finishing participants will overlook their errors and seem unconcerned about injuries and deaths caused by carelessness along the way. Make sure there is an objective evaluation of performance - it is rarely 'perfect'.)

How well did the group cope with this challenge? (e.g., out of 10?)

What was the initial reaction of the group?

What skills did it take for the group to be successful?

What would an outside observer have seen as the strengths and weaknesses of the group?

How did the group come up with its best ideas?

What did each group member learn about him/her self as a group member?

What lessons did the group learn from this exercise which could be applied to future situations?

Variations: Can be used as a staff selection or group assessment exercise. Can be used with large groups (with multiple kits and divided into small groups). The toxic waste bucket can be used upside down, with a ball balanced on top. The activity can be framed in many different ways, e.g., instead of waste, it could presented as a desirable substance, such as a life saving serum which needs be carefully transported. Divide the group into leaders and workers. Leaders can talk but not touch equipment. Workers cannot talk but can touch equipment. For added drama, the toxic waste can be floated on a platform in a swimming pool. A chemical reaction can be created by putting baking soda in the neutralization container and vinegar in the toxic waste container. When combined, they froth.

One example of how the exercise can be run can be found at:
https://www.youtube.com/watch?v=KmDJj3iTU_M

BOMB SHELTER TABLE TOP EXERCISE

The following 15 people are in a nuclear bomb shelter. A nuclear attack has occurred. These 15 people are the only humans left alive on earth. It will take 2 weeks for the radiation level to subside to a safe level. Food and supplies can sustain seven people for 2 weeks. ONLY SEVEN PEOPLE CAN SURVIVE IN THIS SITUATION. The decision as to who will "survive" must be unanimous.

1. Dr. Dane. African-American, 35, married, one child (Bobby), no religious affiliation, PhD in history, college professor, good health, physically active, and enjoys politics.

2. Mrs. Dane. Caucasian, Jewish, 38, BS and MS in Psychology, counselor in a mental health clinic, good health, one child (Bobby), and active in community activities.

3. Bobby Dane. Mixed Caucasian and African-American, Jewish, 10, attended special education classes for 4 years, has a mental disability, an IQ of 70, good health, and enjoys pets.

4. Mrs. Garcia. Hispanic, 33, raised Catholic, 9th grade education, exotic dancer, prostitute, good health, in a foster home as a child, was attacked by foster father at age of 12, ran away from home, returned to reformatory where she stayed until 16, and has a 3-week old child, Jean.

5. Jean Garcia. Three weeks old, Hispanic, in good health, and nursing.

6. Mrs. Evans. African-American, 32, Protestant, BA, and MA in elementary education, teacher, divorced with one child (Mary), good health, outstanding teacher, enjoys working with children.

7. Mary Evans. African-American, 8, Protestant, 3rd grade, excellent student, and in good health.

8. John Jacobs. Asian-American, 13, Protestant, 8th grade, honor student, and in good health.

9. Mr. Newton. Caucasian, 26, atheist, starting last year of medical school, known to have homosexual tendencies, good health, and wears "freaky" clothes.

10. Mrs. Clark. Caucasian, 26, Protestant, college graduate in electrical engineering, married, no children, good health, enjoys outdoors sports, and grew up in the inner-city.

11. Sister Mary Kathleen. A Caucasian Nun, 35, college graduate, English major, middle-class American, and in good health.

12. Mr. Black. Caucasian, 51, Mormon, high school graduate, mechanic, "Mr. Fix-it," married, and in good health.

13. Miss Harris, Hispanic, 21, Protestant, college senior, nursing major, likes people, good health, and enjoys outdoor sports.

14. Father Flanagan. African-American, 37, Catholic, college, seminary experience, priest, active in civil rights activities, criticized for his liberal views, good health, and a former college athlete.

15. Dr. Lee. Asian-American, 66, MD, general practitioner, has had two heart attacks in the past 5 years but continues to practice medicine.