

Simulation – Island Survival

Activity

Part I: Preparation (Day 1)

Begin by asking students: ***What would you need to survive if marooned on a deserted island?*** They should consider items in each of the basic categories of survival: water, food, shelter, warmth, and good health. (Categories could already be written on the board.) Ask students how they might finally be able to safely return home. Some responses from students might include waiting to be rescued, making a raft, or signaling a passing plane or ship.

Tell students that they will be participating in a simulation of island survival. Have **students work in groups to develop a list of five things that they would bring to an uninhabited subtropical island to help them survive for up to one year. All items must fit in a single, zipped-up, medium-sized backpack. Students are not permitted to bring any type of firearm or telecommunications device that would allow them to communicate with the outside world. However, each student will be allowed to bring a journal and a pen or pencil as well as the clothes that they are wearing that day (these are not counted among the five items).**

1. Have **each student group** write each item from their final list of 5 things on individual slips of paper, then place the paper slips in the class “item” box. If possible, you can add a few extra slips of paper to the box, listing common items whose use on an island may be unclear (ex: umbrella, hand mirror, soccer ball, rubber bands, paper clips, string, cassette tape, etc.).
2. At the end of class today, or at the end of the simulation, have students write a journal entry describing the 5 items that their group selected, and explaining why they chose each of them.

Part II: Planning (Day 1)

Have each student group select two items from their original list, then pick three items from the item box, without looking. These are the 5 total items that their group will bring with them to the island. Provide each student group with a copy of the island map (see Teacher’s Notes for map details). With the map and their list of items, have **students work with their group to develop an island survival plan.**

- What will they do first? What will they eat and drink?
- Where will they sleep? How will they protect themselves?
- How could they eventually escape from the island?

Have each student summarize their group’s plan in a journal entry, giving personal opinions and points-of-view.

Objectives

- Students will understand options for meeting basic human needs.
- Know how to develop a plan for meeting basic human needs.
- Work cooperatively with classmates to solve real-life problems related to survival.

Materials

READ carefully through the entire simulation before deciding if it is suitable for your group

- Teach the Background Notes TI J (attached) before the students begin the activity
- Make a map of a small island Draw in the divisions, making 5 sections (north, south, east, west, center) Use any map. The island can be actual or imaginary, do NOT include any towns or any man-made objects. Make student copies of the map.
- Create the Challenge Cards (attached to the student worksheet). Cut and place in a box. You can add or subtract from the list. There is just one set in a box for the entire class to draw from.
- Student copies of the SW J Island Survival worksheets.
- Box for names of items to bring to the island, and small slips of paper
- Student journal writing materials

Student work groups: If assigned, you will want to get these balanced by gender, ability, and personality before starting.

Part III: Island Survival Simulation (Day 2)

- Begin the simulation. In this final phase of the activity, students will activate their plans. Start by handing out a copy of the SW J- “Island Survival Worksheet” to each student. Then, read the worksheet’s Survival Scenario aloud, making sure that students understand the rules, and ultimate goal of the exercise. You may also make copies of the sheet below for point values that the students transfer to their Resource Tracking Chart. (Found at the end of the SW J and the Resource tracking Chart.)
- Next, have students record their initial resource points in the first blank horizontal row of their worksheet Resource Tracking Charts. These points are based on the five items that each group “brought” to the island with them. All groups begin with at least five health points (five points plus any additional health points for medicine, a first aid kit, etc.). In addition, here are recommended point values for some of the most likely initial items:



Initial Items	Resource Points
Each food item	+1 food
Fishing rod or other device to catch/find food	+3 food
Packet of crop seeds	+3 food in Round 3
Each water/drink container	+1 water
Each tool useful in constructing a shelter	+2 shelter
Each blanket or piece of extra clothing	+1 warmth
Matches or sleeping bag	+2 warmth
Tent	+2 warmth, +2 shelter
Bottle of vitamins or medicine	+1 health
First aid kit	+3 health
Binoculars	+1 escape
Mirror	+1 escape (daytime only)
Survival manual	+1 for each resource

Note: Allow students to attempt to justify additional resource points for their initial resource list. Be fair in awarding extra points. Accept reasonable arguments.

- In the third step of the simulation, have each group choose between two initial exploration strategies: (1) quick search or (2) thorough search. If a group initially chooses to do a quick search, it may do a thorough search on a later turn. However, once it has done a thorough search, a group **cannot** do a quick search later on. Have each group commit to a strategy before reading them the point results of their chosen strategy (see the provided strategy table for point allocations).
- Have students record their strategy choice, then place their resource additions or losses in the upper left corner of the appropriate square in the second row of their Resource Tracking Charts. When done, have students record their cumulative scores for each category in the center of the square by adding their exploration results to their initial resources. For example, if their initial resources were +1 water and they chose to do a thorough search, they would now have +6 for water resources.
- Have each group select one of the five sections on the island to set up a camp. They should mark this location on their map with an X. They should also indicate whether they are camping on the beach or inland. When they eventually build a shelter, they also need to specify its location. Once built, the shelter will remain at this location unless they adopt a strategy to move it elsewhere.

- From here on, the simulation proceeds for each group in a series of rounds. Each round represents one month of “island time.” In each round, a group should first choose a Challenge Card from the Challenge Box, without looking. The card may result in the loss or gain of resources, or an opportunity to escape. Each student group then chooses a single strategy, which may also result in the loss or gain of resources, or in an actual escape. As the teacher, you will have to decide how many resource points to reward or remove for a particular strategy. Some common strategies and recommended point gains/losses are as follows: (Teacher can make an overhead of this, or worksheets, master found at the end of the SW.)

Strategy	Resource Points (gains and losses)
Explore island quickly	+1 water, +1 shelter, +1 food (first turn only)
Explore island thoroughly	+5 water (spring found), +3 food, +3 shelter, -1 health (can do only once, on first or second turn)
Build a reed or stick shelter	+2 shelter (must specify where shelter is located)
Build a log or stone shelter	+3 shelter (must specify where shelter is located)
Build a water barrel	+2 water (if rains in future round)
Search for wild vegetables or fruit	+2 food (one time only for each)
Search for water	+3 water (one time only)
Search for lumber/coconut trees	+2 food, +1 water, +2 shelter (one time only)
Maintain a fire at night	-1 shelter, +2 escape (night only), +1 warmth
Make a rod or net to catch fish	+3 food
Make a spear to catch fish	+2 food
Move a shelter to another area of the island	no change in points
Build a raft or boat	-3 shelter, + 3 escape (water only)
Float on a log	+1 escape
Use a mirror to reflect sunlight	+1 escape (day only)
Make a message on the beach with rocks	+1 escape (day only)
Signal using a flashlight	+1 escape (night only)
Send up a flare	+2 escape
Use binoculars	+1 escape
Maintain a lookout	+2 escape
Toss a bottle with a note in it into the ocean	+2 escape, two rounds later

Have students record each point change in the upper left of the appropriate square on their Resource Tracking Charts before adding up their cumulative points in the center of the square. Also, **be sure to have each group subtract one point for food and one point for water in each round.**

- Groups can work independently, and use the time in between rounds to discuss potential future strategies and record the results of their previous strategies in their Resource Tracking Charts and journals. This cycle of rounds repeats until the groups escape, lose, or class time runs out. Note: If students participate in more than five rounds, have them continue their Resource Tracking Charts on the back of their worksheets.

Summary

- Have students write a final journal entry summarizing their experiences and what they have learned.
- At the end of class, assign each student to write a journal entry describing the items that their group selected, and explaining why they chose them.
- As another journal entry: You are able to bring one small item from the island back home with you as a reminder of your time there. It may be something that you brought in your backpack, something that you made on the island, or an object that you just picked up on the island. Explain which item you will bring home and why.

Vocabulary

- Dehydration
- Hyperthermia
- Hypothermia
- Uninhabited
- Subtropical

Notes for Teachers

Consider showing part or all of the film "Cast Away". Tom Hanks' character uses a variety of common items and clever ways to survive.

Consider: When will you end the game? After the first student group has escaped? Or by the time limit?

Reflection

What did I learn from working with my group from this activity?

Why is cooperation important? What about the role of teamwork?

Home Connection

Students can ask parents what they would do if stranded on an island, for another perspective. Students could ask specific questions related to the issues/problems of their own work group for additional insight.