

To: Professor Dvorak  
From: Mark Kolodii  
Date: 10/07/24  
Subject: Use Case for the Standard Operating Procedure  
Title: "How to Start a Campfire"

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### **Overview**

Below are two use cases for the "How to Start a Campfire" SOP.  
The first is a happy path illustration for how to get a fire going.  
The second showcases what happens when no large logs are available to fuel the fire.

### **Location**

A campground in a California State Park.

### **Necessary Items**

Tinder - paper, straw, leaves  
Kindling - sticks, pinecones, tree bark  
Fuel - logs, coal, charcoal, cardboard  
Bucket of Water  
Marshmallows

### **Actors**

John Smith, avid camper and outdoor enthusiast.

## **Happy Path - Normal scenario**

### **Description**

John Smith has set up his campground and is in need of a fire.

### **Pre-condition**

John Smith has gathered all necessary ingredients to start a fire at his lot.

### **Normal Flow:**

1. John Smith uses the campground's fire pit.
2. John constructs a log stack out of sticks, leaves, and paper.
3. Carefully he ignites the tinder and introduces the meager flame to the base of the stack. Letting the flame converge with the remaining kindling and tinder.
4. Calmly John blows air into the flame to keep the fire from fading. John makes sure to do this infrequently and breath fresh air away from the smoke.
5. John applies leaves and small kindling as the fire grows.
6. John keeps the fire at desired strength by placing larger logs atop the smoldering embers.

### **Post-condition**

John Smith is readily relaxing by the fire he just made. He has a bucket of water to kill the fire when turning in for the night.

## **Error path - Alternative scenario**

### **Description**

John Smith has set up his campground and is in need of a fire. Camp has ceased sale of large fire logs for the day. John Smith will keep a shorter and weaker fire for the night.

### **Pre-condition**

John Smith has gathered all necessary ingredients to start a fire at his lot, sans large logs.

### **Normal Flow:**

1. John Smith uses the campground's fire pit.
2. John constructs a log stack out of sticks, leaves, and paper.
3. Carefully he ignites the tinder and introduces the meager flame to the base of the stack. Letting the flame converge with the remaining kindling and tinder.
4. Calmly John blows air into the flame to keep the fire from fading. John makes sure to do this infrequently and breath fresh air away from the smoke.
5. John applies leaves and small kindling as the fire grows.
6. John keeps the fire at desired strength by continually placing kindling such as sticks, tree bark, and pinecones.
7. The weak fuel being used causes John to use more overall material in the form of kindling to keep the fire going.
8. John is dissatisfied with the final stick fire and uses the water bucket to call the night to an end.
9. John takes marshmallows and enters his tent for the night.

### **Post-condition**

John Smith is in his tent near a cold fire pit filled with wet sticks and kindling.