

To start with, a sleeping bag and a cheap pup tent are advisable so you have comfortable shelter to sleep in during construction of the dome. Buy a small one, resisting the temptation to go larger, as it needs to be storable in a backpack and is only a temporary measure. Save your money for the other items on this list. Here's a model of tent that averages \$22-30 in price, pick your preferred source:

<http://www.google.com/products/catalog?q=tent&hl=en&um=1&ie=UTF-8&tbm=shop&cid=10467537434389556048&sa=X&ei=v4HITpiyPIGFtqfd8viFDA&ved=0CMwBEOUNMAI>

Here's an excellent cold weather sleeping bag. It's \$10 more than a warm weather sleeping bag but the difference is worth it. It's winter right now, something designed for camping in sub zero temps will keep you cozy at nights. You will eventually want an electric blanket and air mattress, but for now a sleeping bag designed for cold weather environs will suffice:

http://www.google.com/products/catalog?q=sleeping+bag&hl=en&um=1&ie=UTF-8&tbm=shop&cid=8964806896673833746&sa=X&ei=y4LITpCeKMK_tgft0uniCw&ved=0CLQBEOUNMAE

You will also need an initial supply of food and bottled water or access to a water source and a means of filtering it. Here are two written guides and two video tutorials on how to make a low cost water filtration system from sand, pebbles and a 2 litre water bottle. Ideally you should make several as they filter water at a very slow rate.

<http://www.practicalsurvivor.com/emergencywaterfiltration>
http://www.ehow.com/way_5447837_homemade-liter-bottle-water-filter.html
<http://www.youtube.com/watch?v=FbPvhXrfqjQ>
<http://www.youtube.com/watch?v=AXfVVAJJ1I>

They may use varying designs but all operate on the same principles and any one of them should suffice. Three or four filters of this type will suffice for one person's daily needs. For food, consider bulk dry goods from a bulk foods store. Not things like rice and beans which require boiling or other prep, but things like granola, dried fruit slices and so on. Invest also in rubbermaid containers for keeping these foodstuffs dry and off limits to bugs or small animals.

With the tent, water filters, sleeping bag and initial food supply taken care of, you have everything needed to pick a secluded spot and begin construction of the dome. Don't actually head out until you have everything necessary to build the dome because you need a residential address for the parts to ship to, at least for those ordered online.

Here's a written guide and video tutorial for building a modest "3 frequency" geodesic dome. 3 frequency refers to the number of segments. Higher frequency domes are rounder but more complex to build. A 3 frequency dome is simple to build and plenty strong for your needs. View the guides below:

<http://www.instructables.com/id/How-to-build-a-PVC-geodesic-dome/>
<http://www.youtube.com/watch?v=osnv4lFZW5o>

Home Depot or Lowes will not only have the PVC pipe, but they will also cut it for you on

request to the lengths specified in the tutorials. More importantly, they also carry multi-sided connectors of every conceivable type, you should be able to find four and five sided connectors of the type needed. If not, as in the instructable you can make your own connectors (or ask the Home Depot people to make them) as shown, from four or five two sided connectors cut in such a way that they can be bolted together in the center to form a sort of five sided star shaped connector. Provided that the pipe segments are the correct lengths and you have the connectors purchased or built, you're equipped to assemble the dome skeleton itself. However, you will also need a large tarp. Best to buy several and stockpile some of them in a hidden cache in case the one you're using is stolen or confiscated. A black tarp is recommended because it will absorb heat from the sun most effectively. Slim tent stakes, preferably metal, can be used to secure the corners of the tarp in the ground after it's draped over the dome. You now have a wind and rain proof shelter.

The dome will keep out water from above, but only by raising the ground level inside above the dome's rim can you keep the floor (and your bedding) dry. For this I recommend waste paper, house insulation, any cheap material you don't have to pay much for and which can get wet without consequence, laid down and crushed flat until there's a sort of cushioned platform an inch to three inches high. A second tarp is stretched over this material and staked down to keep it in place.

Now, you'll want an airbed. This not only provides a comfortable surface on which to sleep but also keeps you high enough that you're certain to stay dry. You can buy some dodgy brands for very cheap and even get several for the price of one nicer airbed, but they are prone to develop leaks that are difficult to permanently repair. If you'd like to go the cheap route, look at these:

http://www.google.com/products/catalog?q=air+mattress&hl=en&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1280&bih=653&um=1&ie=UTF-8&tbm=shop&cid=12944543925441349337&sa=X&ei=KYXITv6JGIK3twf-25mtDA&ved=0CKMBEPMCMAA

If you'd like a reputable brand for a few dollars more, look at a Coleman:

http://www.walmart.com/ip/Coleman-Twin-Single-High-Air-Bed/16539575?ci_sku=16539575&ci_src=14110944&sourceid=1500000000000003260410

To inflate the bed quickly, you'll want a 12 volt air pump. Not 120volt, as that requires an outlet or an inverter, and inverters waste a lot of power converting between DC and AC. You will be using 12 volt car batteries for power storage, so all appliances you buy should be 12 volt travel/camping appliances:

<http://www.walmart.com/ip/DC-Insta-Pump/14295539>

Now, you'll need a 12 volt battery charger. Here's the cheapest I could find, it has a switch for charging either 6 or 12 volt batteries::

<http://www.walmart.com/ip/American-Hunter-Charger-BL-C6-12-6-12-Volt-Battery-Charger/14678470>

In the event that you do need to charge something that uses a regular wall outlet plug, you will need an inverter. This converts 12 volts to 120.

http://www.google.com/products/catalog?pg=clip+on+inverter&hl=en&ds=pr&cp=0&gs_id=24&xhr=t&q=inverter&tok=m8qHhWVh7DSX3UtrInmfzw&gs_upl=&bav=on.2.or.r_gc.r_pw..cf.osb&biw=1280&bih=653&bs=1&um=1&ie=UTF-8&tbm=shop&cid=10509862956834683779&sa=X&ei=VlbtToLMDcO1tge9p9D9Cw&sqi=2&ved=0CJwBEPMCMAA

In order to use this inverter with a a 12 volt battery, you will need a 12 volt female socket with alligator clips that attach to the battery terminals. That can be found here:

http://www.northerntool.com/shop/tools/product_200438216_200438216?cm_mmc=Aggregates-_-Google-_-Alternative%20+%20Renewable%20Energy%3EPower%20Inverters-_-457105

With a 12 volt lead acid battery, the 12 volt socket clipped onto the battery terminals (red is positive, black is negative) you can now plug in the air pump, which doesn't need an inverter because it's already a 12 volt appliance so it has the correct plug from the start. Plug it into the 12 volt socket, and it should activate.

Now that you have a shelter, dry ground, a battery with the means to charge it and to convert to 120v as needed, you can buy the heated blanket. Choose from one of the following, keeping in mind that they are different sizes and you'll want one large enough to comfortably sleep under:

<https://www.google.com/search?q=12+volt+heated+blanket&tbm=shop&hl=en&aq=f>

It is advisable to purchase two (one to lay on the mattress and sleep on top of and the other to use as a blanket) and use a 12 volt splitter like this <http://www.amazon.com/12-Volt-Outlet-Splitter-Turn-Cigarette/dp/B001KS94OO> or this <http://www.amazon.com/Wagan-Twin-Socket-Travelers-Adapter/dp/B0019891NO> to turn a single 12 volt socket into multiple sockets. Keep in mind the wattage of the blanket determines how long it will run on a single battery. You can calculate the Watt Hours of the battery by multiplying the voltage by the amp hours. For instance, a 12 volt, 28 amp hour battery is $12 \times 28 = 336$ watt hours. Therefore, a 25 watt heated blanket will run for just over 13 hours on that battery. 336 divided by 25 . With this simple formula you can choose a battery for your needs, keeping in mind that it should be something small and light enough that you can carry it in your backpack; After all, the cheapest way to recharge them will be to either leave them (concealed) plugged into an unlocked public power outlet or by setting your bag down next to an outlet in starbucks, with the battery concealed in your bag, charging. The best plan is probably to have multiple mid sized batteries. Use them as needed while also occasionally take the depleted ones to public outlets or starbucks for charging.

Here is an illustration of the system as described above:

