Imagine that you are a zookeeper with the Michigan State Wildlife Park. Currently the Michigan State Wildlife Park is a wooded area within the City of Lansing. Your job is to work with the Wildlife Park architect to design the best homes possible for five of the main zoo attractions: the Lion’s Den, Sparty’s Aquarium, Monkey Jungle, the Reptile House, and the Polar Bear Refuge. You have the GPS (Global Positioning System) coordinates for these five wildlife homes, but as a zookeeper you must make sure that the animals have living areas that are appropriate for them. Walk from location to location to make sure the area is suitable and you will find a reward.

The first location is the Lion’s Den. Panthera Leo or the African Lion prefer grassy plains, savannahs, and open woodlands. They are the only social member of the cat (Felidae) family, living in large groups called "prides." A lion can run for short distances at 50 miles per hour and leap as far as 36 feet. They are also territorial, males roar and use scent markings to establish their domain. A zookeeper may use GPS to map the boundaries of each lion’s territory. Use your GPS unit to find the coordinates of the Lion’s Den at _________________.

Next you will map the location for Sparty’s Aquarium. So far the Michigan State Wildlife Park has three homeless dolphins, a pair of endangered Hawaiian monk seals (Monachus schauinslandi), and many salt-water fish. A zookeeper might use GPS to map out the required area these sea creatures will need. Use your GPS unit to find the coordinates of Sparty’s Aquarium at _________________________________.

The third location is Monkey Jungle. Right now the park has only one species of monkey, the spider monkey Ateles geoffroyi geoffroyi. Spider monkeys prefer evergreen forests and almost never come to the ground, sleeping in the highest canopy of trees. In the zoo they are fed celery, bananas, raisins, apples, oranges, carrots, monkey chow, dog chow, lettuce, and wheat bread. Since the monkeys rarely travel down from the canopy a zookeeper might use GPS to locate appropriate feeding sites in the Jungle. Use your GPS unit to find the coordinates of the future Monkey Jungle site at ______________________.
The fourth location is the Reptile House. Reptiles are cold-blooded animals, which means they warm themselves in the sun, and have bodies covered in dry, horny scales. Today there are 6,800 reptile species on earth but the park’s future reptiles will include: alligators, turtles, snakes, and lizards, like this Collard lizard. A zookeeper might use GPS to locate the warmest habitat possible for zoo reptiles. Use your GPS unit to find the coordinates for the Reptile house at __________________.

The last location you’ll examine is the Polar Bear Refuge. Polar bears are native to Arctic Alaska and Canada and because they are covered with waterproof and hollow hairs they can stay warm and float better when they swim. Polar bears eat mainly young seals and walruses and can grow up to 11 feet long. A zookeeper might use GPS to make sure the polar bears are located far away from their prey, the monk seals. Use your GPS unit to find the coordinates of the Polar Bear Refuge at ________________.