Part 1

 what you did - This part was relatively simple. I used my fish brain as created last task and created a genericMovement class that is able to be assigned to any object and give it position in the world and allow it to move randomly around the world. For this I also created a basicBee, workerBee and scoutBee class that would me to customize the movement while using all the stuff I have created before. The workerBee had to override its nextLocation so that it would stay in position and not move like it's suppose to.

how well it worked - This worked quite well. everything constantly had a random heading and random position each time.
what its pros and cons are - The pros of this system are that each object has the ability to move and are given position in the world.
I couldn't think of any cons to this system.

 what you might improve- for this I might improve how random the placement is as I tended to have all the bees group up in an area

Part 2
what you did - For this part I ended up adding an abstract method to the genericMovement class that could be used to check local collisions specifically by an object, or allow it to see by using the sight check method that was also added to the genericMovement class. What this does is take a genericMovement object and check to see if the angle between the current object and the given on is within a given range and also that the distance is within a given one. If this is met a true is returned for the object to decide how it should react act.

how well it worked - This actually worked out fairly well once I remembered how the angle method I created within the point worked and adjusted everything properly.

what its pros and cons are - the pros of this is that the angle and distance can be changed. Additionally it can be used for a wide number of things and ranges.

the cons of this are that it requires one object to be genericMovement, while the other requires a point in order to check the location

 what you might improve- I'm not sure there is anything I'd like to improve in this model.

Part 3
what you did- for this I used a similar setup as I used for the fish where it compared the distance of the units from the current location vs. the next location and if the distance was too big they were would get new headings.

how well it worked - this would have worked well had I not attempted to keep the workerbees in the same spot regardless. As a result the scout would possibly run through them while attempting to avoid them because the workers aren't moving. Additionally I added in the ability to turn off the tag by looking for happyBees which are on the flower and not allowed to collide.

what its pros and cons are - The pros are that all objects are able to collide. The cons are a result of attempted compromise to make the workers remain in place.

 what you might improve- I would add a check for the turn as that is one cause of part of the issues that constantly happened.

Part 4/Part 5
what you did- For this part I had the bees a reference to the bees save to the flower, the scout bee also has an arraylist of bees that it knows it has passed. When the scout sees an object it determines if it is a bee or a flower based on the name and then stores its reference appropriately. If the bee finds a flower and knows where some Bees are if flies to them in the order it saw them. When it reaches a bee the bee then turns to look at the scout who dances by turning a circle one way for X and then another way for the Z which causes the bee to do a lot of circles.
The bee after watching the dance sets its reference to the bird to the now known point and heads towards the flower.
If the scout doesn't know where any of the other Bees are it keeps looking, after telling all of them the location it heads to the flower itself.

how well it worked - this actually worked pretty well. Albeit it is rather tedious and can crash easily with how much it has going on.

what its pros and cons are - the pros of this are that it functions relatively well. The cons are that it is slow and ineffective.

 what you might improve- how effective this is at giving the information.