```
class Plant
                                                         class Zombie
       Int x;
                                                   Int x;
                                                   Int y;
       Int y;
       Int health;
                                                   Int damage;
                                               - Int health;
   - Int type;
       Int state
                                                   Int state;
                                                   Color c
float getX();
                                           float getX(); / void setX();
                                           float getY(); / void setY();
float getY();
                                           Int getDamage(); / void setDamage()
Int getType();
                                           Int getHealth(); / void setHealth();
Int getState();
                                            Int getState(); / void setState();
void setHealth();
                                            Color getColor(); / void setColor()
void setState();
                                            void die();
void die();
                                            void display();
void display();
                                            void move();
void move();
   class Peashooter extends Plant
                                                class Sunflower extends Plant
       Int x:
                                                   Int x:
                                                   Int y;
       Int y;
       Int health;
                                                   Int health;
       Int damage;
                                                   Int type;
       Int shotCounter;
                                               - Int state;

    Int state:

                                               - Int sunTime;
                                                   ArrayList<Sunlight> dropped;
       Int type;
       ArrayList<Projectile> projectiles;
float getX();
                                            float getX();
float getY();
                                            float getY();
Int getDamage();
                                            Int getType();
int getState();
                                            Int getState();
Int getType();
                                            ArrayList<Sunlight> getDropped();
ArrayList<Projectile> getProjectiles();
                                            void setHealth();
void setHealth();
                                            void setState();
void setState();
                                            void generate();
void die();
                                            void die();
void shoot();
                                            void display();
void display();
                                            void move();
void move();
```

class Projectile implem. Comparable class Sunlight float x; float x; float y; float y; Int damage; Int state; Color c Color c float getX(); float getX(); float getY(); float getY(); Int getDamage(); void setX(); void setX(); void setY(); void setY(); void setState(); void setDamage(); boolean hit(); Int compareTo(); void display(); void display(); void move(); void move();