

# New Idea – Abstract Class

Mr. Neat  
Java

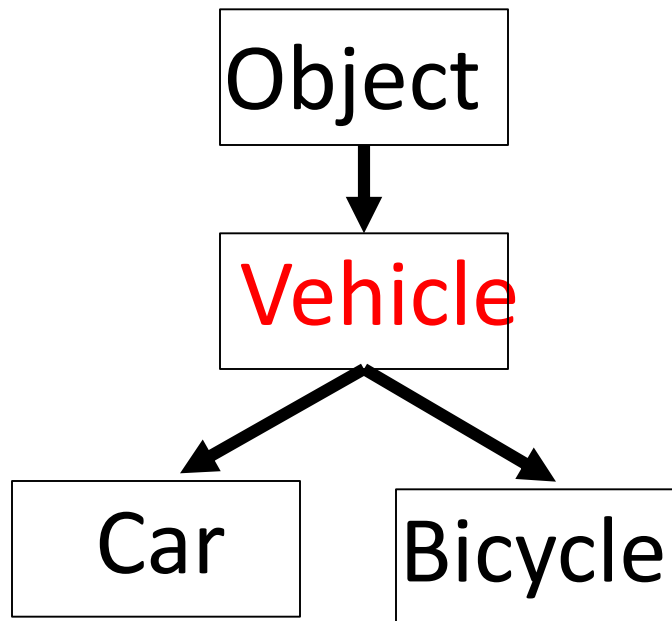
# Big Idea in Java...

## Inheritance

- Mechanism to make a group of different objects that have something in common
- Mechanism to make a more specialized class from a more general class (eg, Car with person in it)
- The Object class is the mother of all classes
- Family trees help to understand

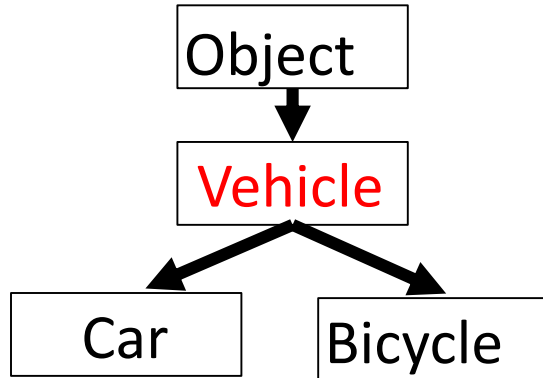
# Big Idea in Java...

## Inheritance – Abstract class



# Big Idea in Java...

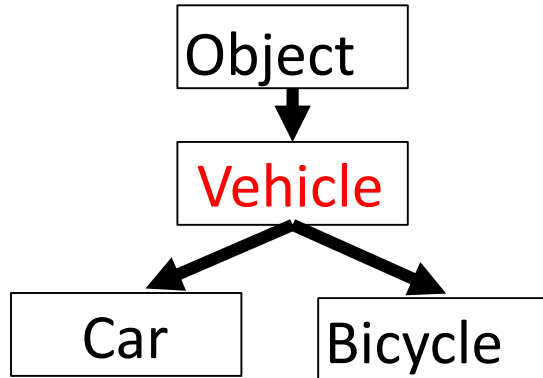
## Inheritance – Abstract class



- Make a new file called Vehicle
- Add abstract methods (methods Vehicle will use)
- Extend Cars and Bicycles

# Big Idea in Java...

## Inheritance – Abstract class

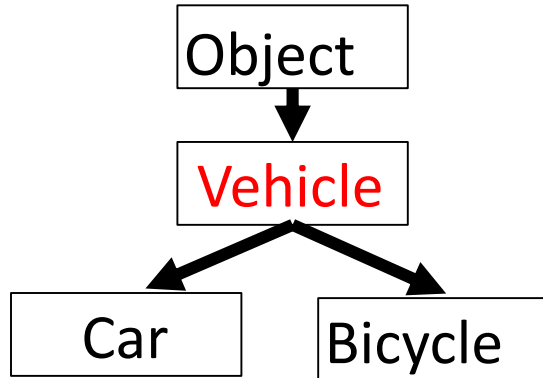


- Make a new file called **Vehicle**
- Add abstract methods (methods **Vehicle** will use)
- Extend **Cars** and **Bicycles**

```
public abstract class Vehicle  
{  
  
}
```

# Big Idea in Java...

## Inheritance – Abstract class



- Make a new file called Vehicle
- Add abstract methods (methods Vehicle will use)
- Extend Cars and Bicycles

```
public abstract class Vehicle
```

```
{
```

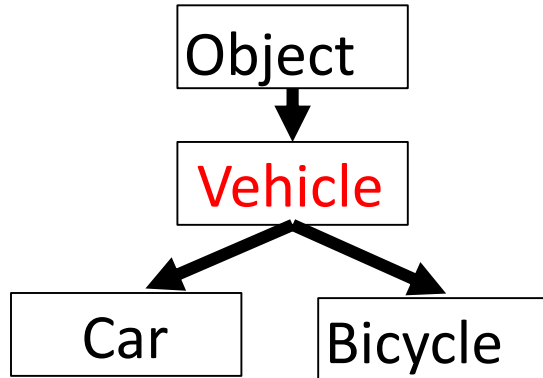
```
    public abstract void driveRandom();
```

```
    public abstract void draw();
```

```
}
```

# Big Idea in Java...

## Inheritance – Abstract class



- Make a new file called Vehicle
- Add abstract methods (methods Vehicle will use)
- Extend Cars and Bicycles

```
public class Bicycle extends Vehicle  
{
```

...

# Lab

- Make 100 Bicycles & Cars (total)
- recycle each Car and Bike
- Make each Car & Bike have:
  - Random colors
  - Random names
  - Random location
  - Random speeds



# hints

- Make an array of 100 **Vehicles**
- Fill array with Cars and Bicycles
- Recycle them