 Inheritance: (BJP Chapter 9.1) is-a relationship: A hierarchical connection where one category can be treated as a specialized version of another. every markter <i>is</i> an employee every legal secretary <i>is</i> a secretary inheritance hierarchy: A set of classes connected by is-a relationships that can share common code. inheritance: A way to form new classes based on existing classes, taking on their attributes/behavior. a way to group related classes a way to group related classes One class can extend another, absorbing its data/behavior. superclass: The parent class that is being extended. subclass: The child class that extends the superclass and inherits its behavior. Subclass gets a copy of every field and method from superclass Syntax: public class name extends Superclass { Example: public class Secretary extends Employee { override: To write a new version of a method in a subclass that replaces the superclass version. No special syntax required to override a superclass method. Just write a new version of it in the subclass. 		Name:	P	eriod:
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AP CS, Garfield HS – Mr. Bergquist (March 2013)

AP CS: Lesson 20: Inheritance & super. (Superclass) super. Interacting with the superclass: (BJP Chapter 9.2) Subclasses can call overridden methods with super • super.method(parameters) Example: public class LegalSecretary extends Secretary { public double getSalary() { double baseSalary = super.getSalary(); return baseSalary + 5000.0; } . . . ٠

Constructors are not inherited.

- Subclasses don't inherit the Employee(int) constructor.
- Subclasses receive a default constructor that contains: _

public Lawyer() {

// calls Employee() constructor super();

 Calling superclass constructor super (parameters); Example: public class Lawyer extends Employee { 		
Example:	•	Calling superclass constructor
		super (parameters) ;
public class Lawyer extends Employee {		Example:
	-	public class Lawyer extends Employee {
public Lawyer(int years) {		public Lawyer(int years) {
<pre>super(years); // calls Employee constructor</pre>		<pre>super(years); // calls Employee constructor</pre>