

## Turtle Methods

	Method Functionality	Method Syntax	Notes
Creating a Turtle	Constructors	Turtle(World world)  Turtle(int x, int y, World world)	Default: starts facing north and in center of world  Starts at position (x,y) (x starts at 0 on the left, y starts at 0 at the top of the window)
Moving a Turtle	Move forward   Move backward   Move to a particular location	void forward()  void forward(int pixels)  void backward()  void backward(int pixels)  void moveTo(int x, int y)	Move forward by 100 pixels  Move forward by given number of pixels  Move backward by 100 pixels  Move backward by given number of pixels  Move to location (x,y)
Turning a Turtle	Turn right  Turn left  Turn right or left  Turn to face another turtle  Turn to face a specific point	void turnRight()  void turnLeft()  void turn(int degrees)  void turnToFace(Turtle turtle)  void turnToFace(int x, int y)	Default: turn right by 90 degrees  Default: turn left by 90 degrees  Turn right if degrees is positive, left if degrees is negative  Turn to face turtle  Turn to face point (x,y)
Turtle Color	Change turtle color  Change turtle body color  Change turtle shell color  Get turtle color  Get turtle body color  Get turtle shell color	void setColor(Color color)  void setBodyColor(Color color)  void setShellColor(Color color)  Color getColor()  Color getBodyColor()  Color getShellColor()	Also sets the pen color
Turtle Size	Change turtle's width or height  Get turtle's width or height	void setWidth(int width) void setHeight(int height)  int getWidth() int getHeight()	
Turtle Name	Set turtle's name	void setName(String name)	

	Get turtle's name	String getName()	
Turtle Position	Get turtle's position	int getXPos() int getYPos()	
Turtle Visibility	Hide turtle	void hide()	Does not affect pen status
	Show turtle	void show()	
Turtle Information	Get turtle information	String toString()	
The Pen	Pick up pen Put pen down Check if pen is down Change width of pen trail Set / change pen color Get pen color Get pen width	void penUp() void penDown() boolean isPenDown() void setPenWidth(int width) void setPenColor(...) Color getPenColor() int getPenWidth()	Default: the pen is down and leaves a trail