

### **Objectives**

If you complete all of these tasks you will learn about:

- Keyboard input and rotation (again)
- Calling methods
- Inheriting methods
- Creating objects
- Using sound

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## Asteroids Project

Download the Asteroids project from the VLE

Unzip it!

Open it!

# **Rotation** — This should be easy by now... In the Rocket class, write code that will make the rocket rotate using the left and right arrow keys **Ignition** Look at the 'ignite(boolean b)' method If 'b' is true then what should happen? If 'b' is not true then what should happen? What does it all mean? Write a single line of code in act() that will allow the rocket to move when the up arrow is pressed 5 Accelerate and move In the Rocket class two methods are called: accelerateDirection moveAtSpeed What do you think each one will do? How does Greenfoot know what to do?

# Inherited methods Methods in a class are automatically included in a subclass But they are hidden in the subclass! When called, they are run within that object, not within the superclass This is very useful if you have a number of classes that all share some behaviour (e.g. things that move) 7 Firing bullets To let our rocket fire we need two things: A line of code that will create a new bullet A bullet class to base the object on We already have the class, we just need to create the code that will create the object 8 Firing bullets

Look at the Space class to see how we can create a Rocket

- What does the first line do?
- What does the second line do?

### Firing bullets In the appropriate method within the Rocket class, add two lines of code: One that will create a new instance of a Bullet One that will add that object to the world 10 Firing bullets Any problems? Look at the Bullet class, especially the method called Bullet(....) This is called the **constructor** and it tells you what information the class needs to create a new instance Go back to your Rocket class and see if you can finx the problem 11 Adding sound Everyone knows that when you fire a bullet in space, it makes a noise! There is a sound file in the project called **EnergyGun.wav** Add a line to the bullet's constructor to make it play a sound

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