Chance of decay:

The half life of carbon-10 is _____ seconds. That means after that many seconds, fifty percent of the atoms will still be carbon-10 and the other half will have decayed into boron.

What percent of atoms remain after one second?

What are the chances your bot will remain carbon each second?

Pseudo-Random numbers:

You will need to generate a random number each second to check if your radioactivebot has decayed or not. After you "import random" you have a choice of "decimal=random.random()" which returns 0 <= decimal < 1 or "integer=random.randint(a,b)" which returns a <= integer <= b.

Which will you use?

How will you use the number that is generated along with the percent of atoms that remain after each second to check to see if your bot has decayed or not?

Program considerations:

What could you add to your program so that it waits until the class is ready (and you hit enter)?

How will you know how many seconds have passed before it decays?

How will the bot show you it still is carbon? How will it show you it has decayed into boron?

How will your radioactivebot behave while it is still radioactive?