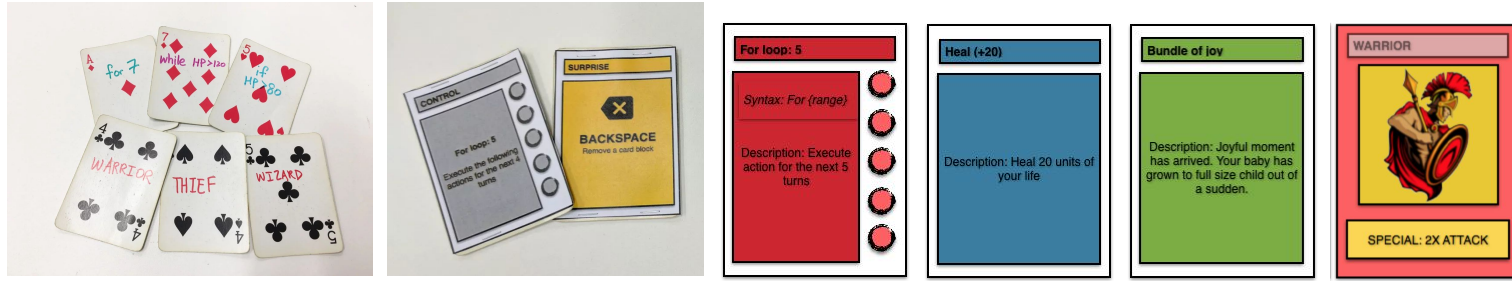


# Prototype and Design Iterations

Version 0.01

Version 0.03



Version 1.10



Version 2.07

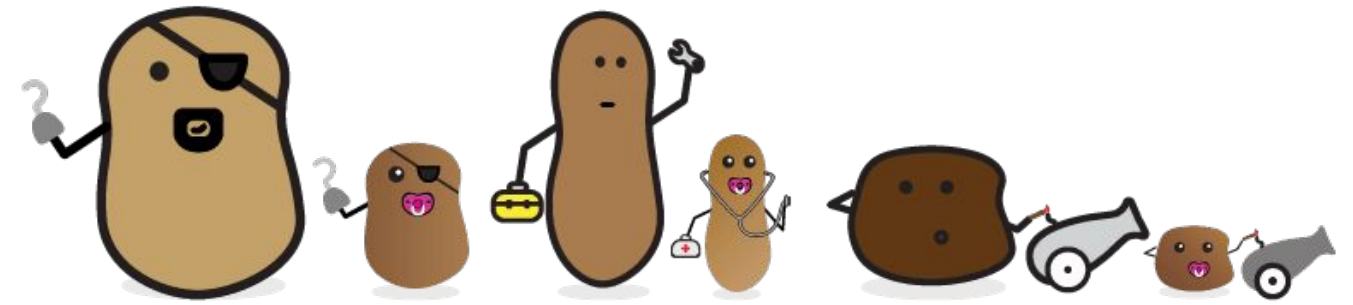


Version 5.09 (Final version)



# Evolution of Artwork

Self-drawn



Freelance artists options



Artwork for version 2 - 4



Finalised version



# Programming concepts covered

VARIABLES



FUNCTIONS

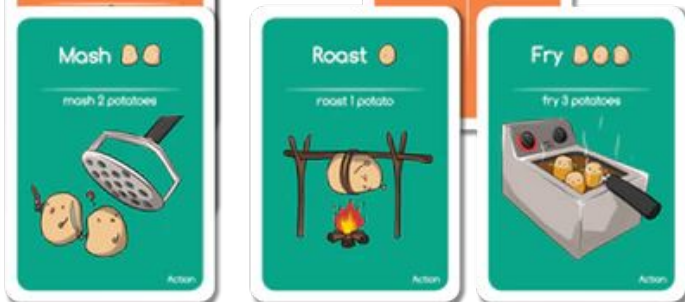


WHILE LOOPS



IF-ELSE  
CONDITIONALS

NESTED LOOPS



ALGORITHMS & SEQUENTIAL LOGIC



INTERRUPTS & CONTROL FLOW



COMMON PROGRAMMING BUGS

# Benefits of Potato Pirates



Social

Ditch your digital devices and spend quality time with friends and family over a round of Potato Pirates.



Meaningful

Who says games don't make you smarter? Potato Pirates helps you learn coding effortlessly while playing!



Universal

Potato Pirates covers fundamental coding concepts which helps to ease you into most programming languages.



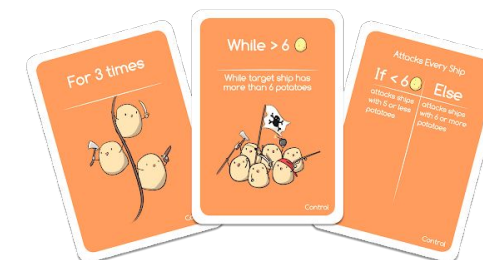
85%

RISE IN INTEREST IN  
LEARNING CODING AFTER  
PLAYING POTATO PIRATES

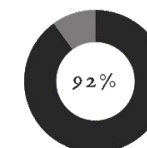


78%

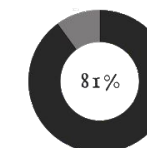
INCREASE IN CONFIDENCE IN  
LEARNING CODING AFTER  
PLAYING POTATO PIRATES



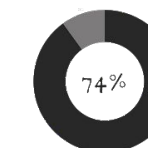
AFTER PLAYING POTATO PIRATES FOR JUST 1 HOUR



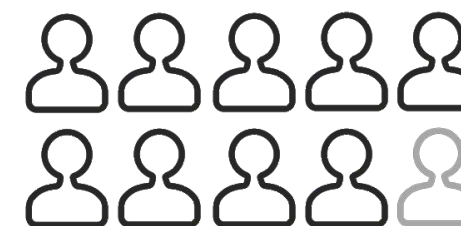
UNDERSTOOD & APPLIED  
FOR LOOPS



UNDERSTOOD & APPLIED  
WHILE LOOPS



UNDERSTOOD & APPLIED  
IF-ELSE &  
NESTED LOOPS



9 IN 10 PEOPLE SHOWED AN IMPROVEMENT IN THE  
UNDERSTANDING OF FUNDAMENTAL PROGRAMMING  
CONCEPTS AFTER PLAYING FOR ONLY 1 HOUR

# Voyages of Potato Pirates



AND MANY MORE...

# What people say about the game



**MR V SURYA**  
Computer Science Educator,  
Jurong West Secondary School

*"It was very intuitive and the logical thinking concepts came through very well. Instead of feeling threatened, the students were so engaged and I felt really sad that I had to put a stop to the activity."*



**INSYIRAH ISHAM**  
Secondary 2 (Grade 8) Student,  
Jurong West Secondary School

*"I had so much fun and it was really beneficial for people with no basic knowledge of coding to learn it in a fun and simple way. It is really fun to play with a group of friends, the more the merrier!"*



**MR PETER SEOW**  
Research Scientist,  
National Institute of Education

*"The activity allowed them to come up with strategies which they could share with each other and a lot of thinking while having lots of fun. The kids still want more, that just shows how engaging the activity was"*

**Saturday Delson Sazaran**  
February 18 at 12:44pm · Edmonton, AB, Canada ·

Alix used the term "nest" correctly in a programming sense for the first time without realizing it. The "learn to code" aspect of Potato Pirates is apparently working.



**Catherine Karena**  
@cakarena

@Skill\_Ed, @ohpotatopirates So we've come across a way to get familiar with basic programming concepts, that's turning out to be a LOT OF FUN. Potato Pirates :) It's 6+ years, but seems a fit for all ages.



22/2/18, 10:45

**Simon Barrowcliff**  
@SimonBarrowcliff

@ohpotatopirates - Excellent game that gets even better with each play. Lots of family fun.

5/3/18, 03:25

**burbs**  
@burbs

@ohpotatopirates Got my cards in the mail this week and my kids immediately jumped into the game. The excitement was evident as they played against each other with loud noises and laughs. Thanks for this!

25/2/18, 07:36

**@ohpotatopirates** Hilarity and hugely engaged students today. This is 5th grade.



5:14 pm - 21 Feb 2018

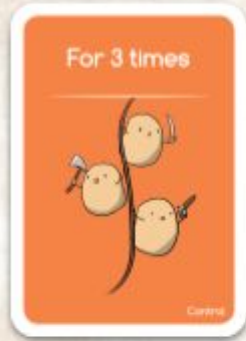
1 Retweet 2 Like



# Chapter 3: Sink or Sail

## For loop

A for loop is a control statement that repeats an action a given number of times. We will use it to create the spinning effect.



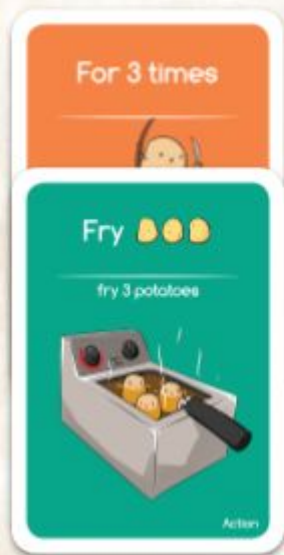
For loop statement in Potato Pirates



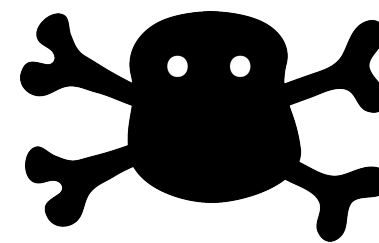
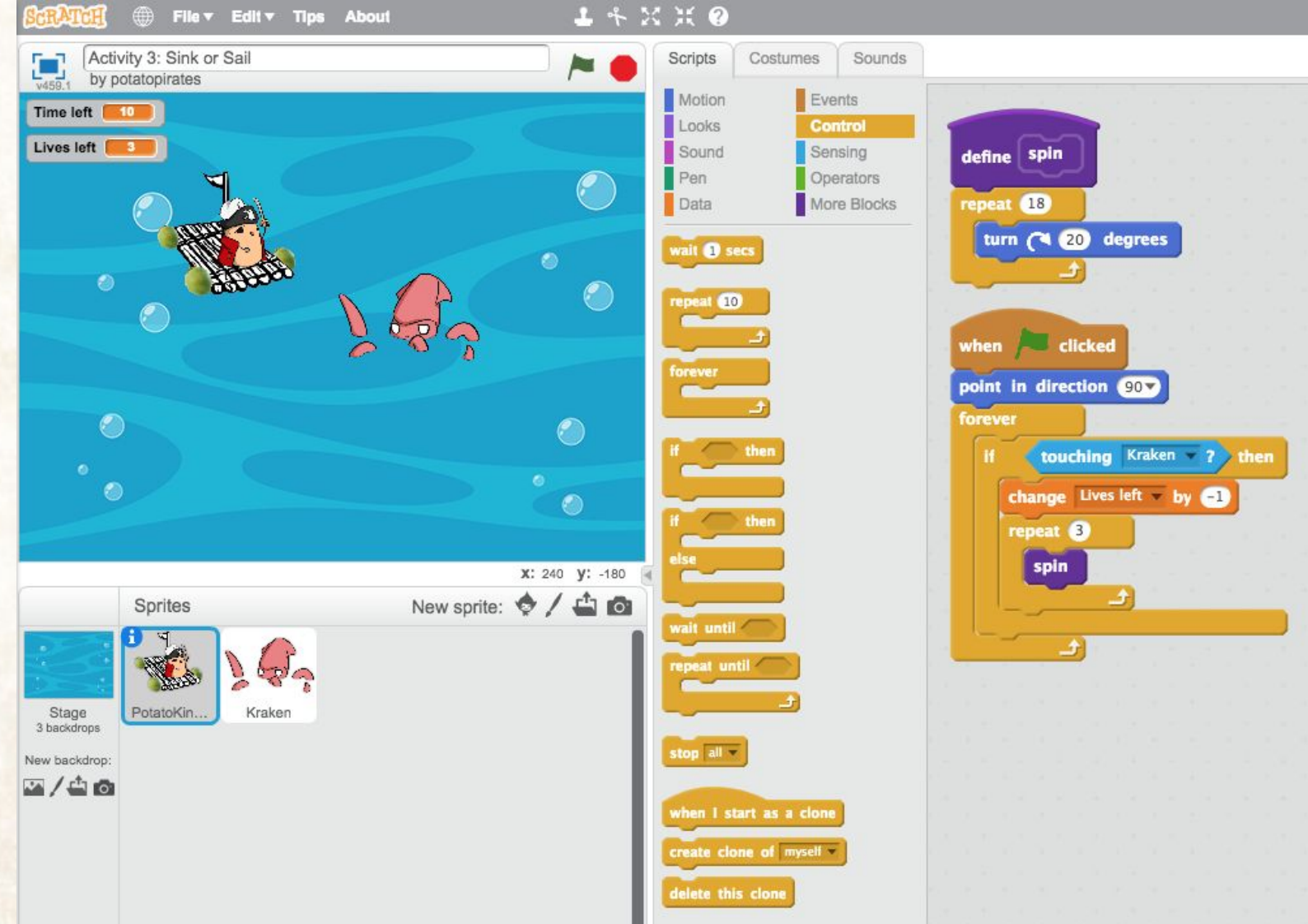
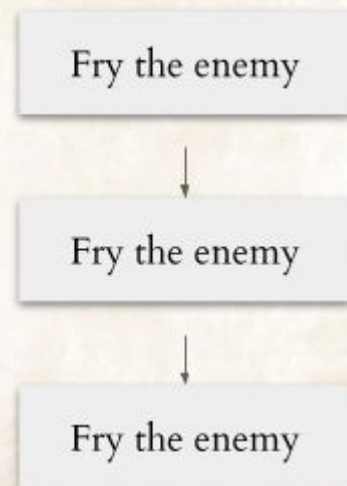
Repeat statement in Scratch

## A quick example

Below is an example of a set up using for loop card in Potato Pirates.



### What it means



# Potato Pirates x Scratch

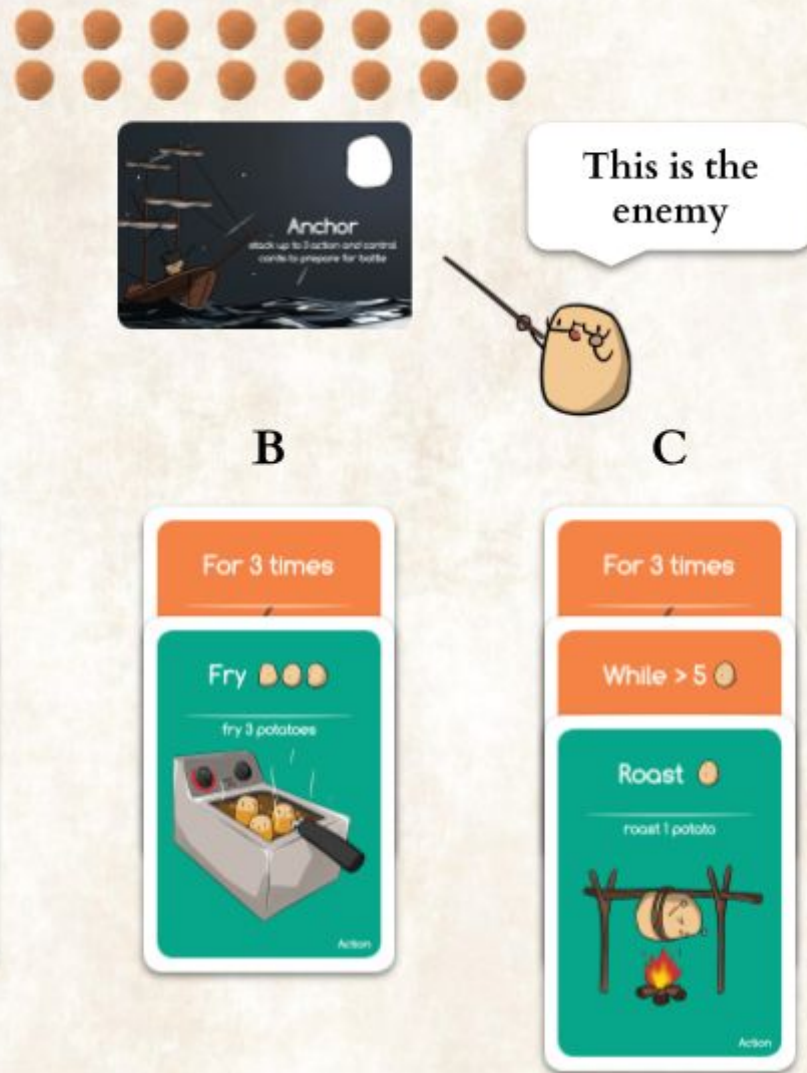
## 3-hr Learning Resource Guide

### Age 6-8



# While Loop (Exercise)

Convert Potato Pirates to Python



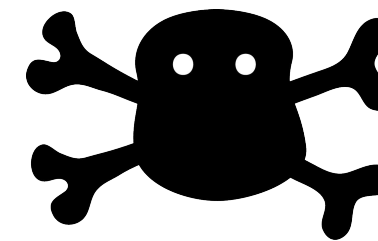
# PYTHON CODE #

```
#Ship A
crew = 16
while (crew > 5):
    crew = crew - 3
print(crew)
```

```
#Ship B
crew = 16
for i in range(0,3,1):
    crew = crew - 3
print(crew)
```

```
#Ship C
crew = 16
for i in range(0,3,1):
    while (crew > 5):
        crew = crew - 1
print(crew)
```

3) Which card stack can deal the highest damage to the enemy?  
Code all 3 card stacks in Python.



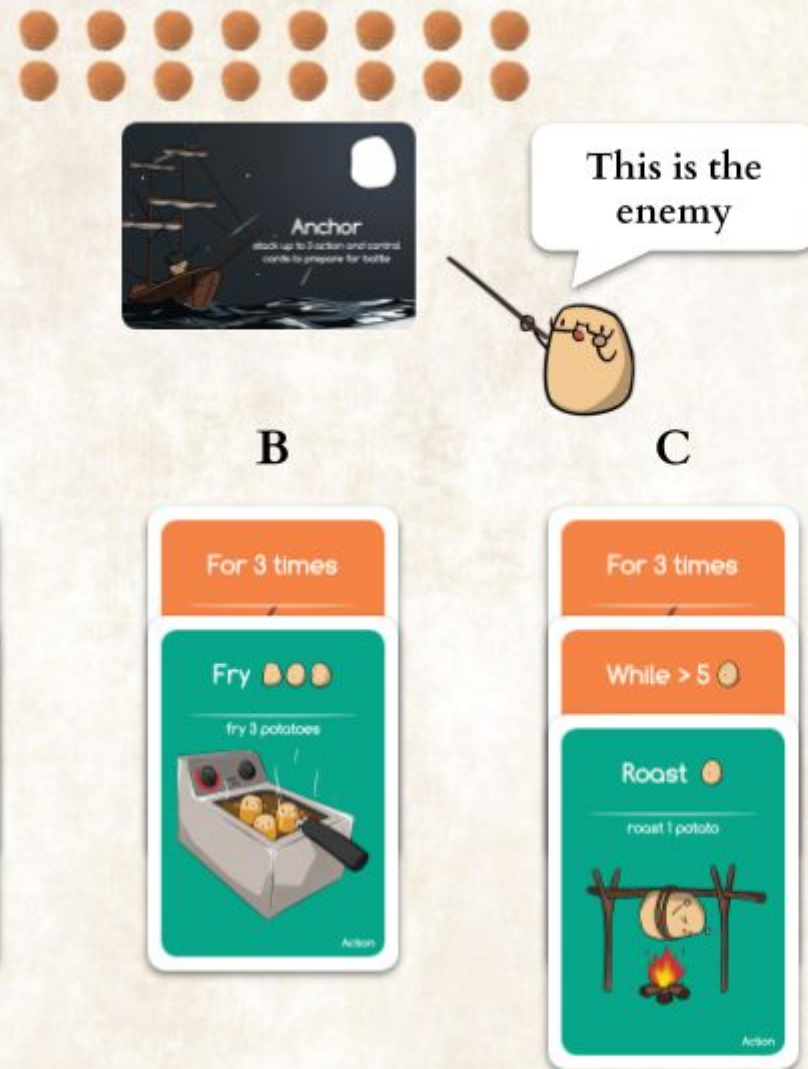
## Potato Pirates x Python

12-hr Curriculum for Educators

Age 9+

# While Loop (Exercise)

Convert Potato Pirates to Java



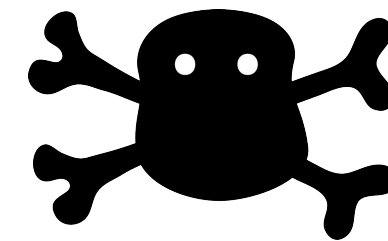
3) Which card deck can deal the highest damage to the enemy?  
Convert all 3 decks into Java code.

```
/* Java CODE */
```

```
// Ship A  
int crew = 16;  
while (crew > 5) {  
    crew = crew - 3;  
}  
System.out.println(crew);
```

```
// Ship B  
int crew = 16;  
for (int i=0;i<3;i++){  
    crew = crew - 3;  
}  
System.out.println(crew);
```

```
// Ship C  
int crew = 16;  
for (int i=0;i<3;i++){  
    while (crew>5){  
        crew = crew - 1;  
    }  
}  
System.out.println(crew);
```



## Potato Pirates x Java

3-hr Learning Resource Guide

Age 9+