Opening Screen Requirements

- ❑ It is a square shape
- ❑ It is 400 x 400 pixels
- ❑ Picture or background
- ❑ Title of game is displayed
- ❑ Coder's name is displayed
- ❑ Key press to enter game noted
- ❑ Colour scheme & Theme evident
- ❑ Outstanding opening screen design

Instructions Screen Requirements

- ❑ It is a square shape
- ❑ It is 400 x 400 pixels
- ❑ Title – Instructions is present
- ❑ Colour scheme & Theme evident
- ❑ Game purpose & objective
- ❑ Screen snapshots
- ❑ Labelled screen snapshots
- ❑ Clear about levels' needed
- ❑ Key press to enter game; it works
- ❑ Everything is spelled correctly
- ❑ No spelling or grammar errors.
- ❑ Pictures of game to illustrate game
- ❑ Excellent and detailed instructions

Win Screen Requirements

- ❑ It is a square shape
- ❑ It is 400 x 400 pixels
- ❑ Picture or background
- ❑ Title (something like “You Win!”) is displayed
- ❑ Key press to reset game noted
- ❑ Colour scheme & Theme evident
- ❑ Outstanding win screen design

Lose Screen Requirements

- ❑ It is a square shape
- ❑ It is 400 x 400 pixels
- ❑ Picture or background
- ❑ Title (something like “You Lose!”) is displayed
- ❑ Key press to reset game noted
- ❑ Colour scheme & Theme evident
- ❑ Outstanding win screen design

1. Make the screens using PowerPoint.

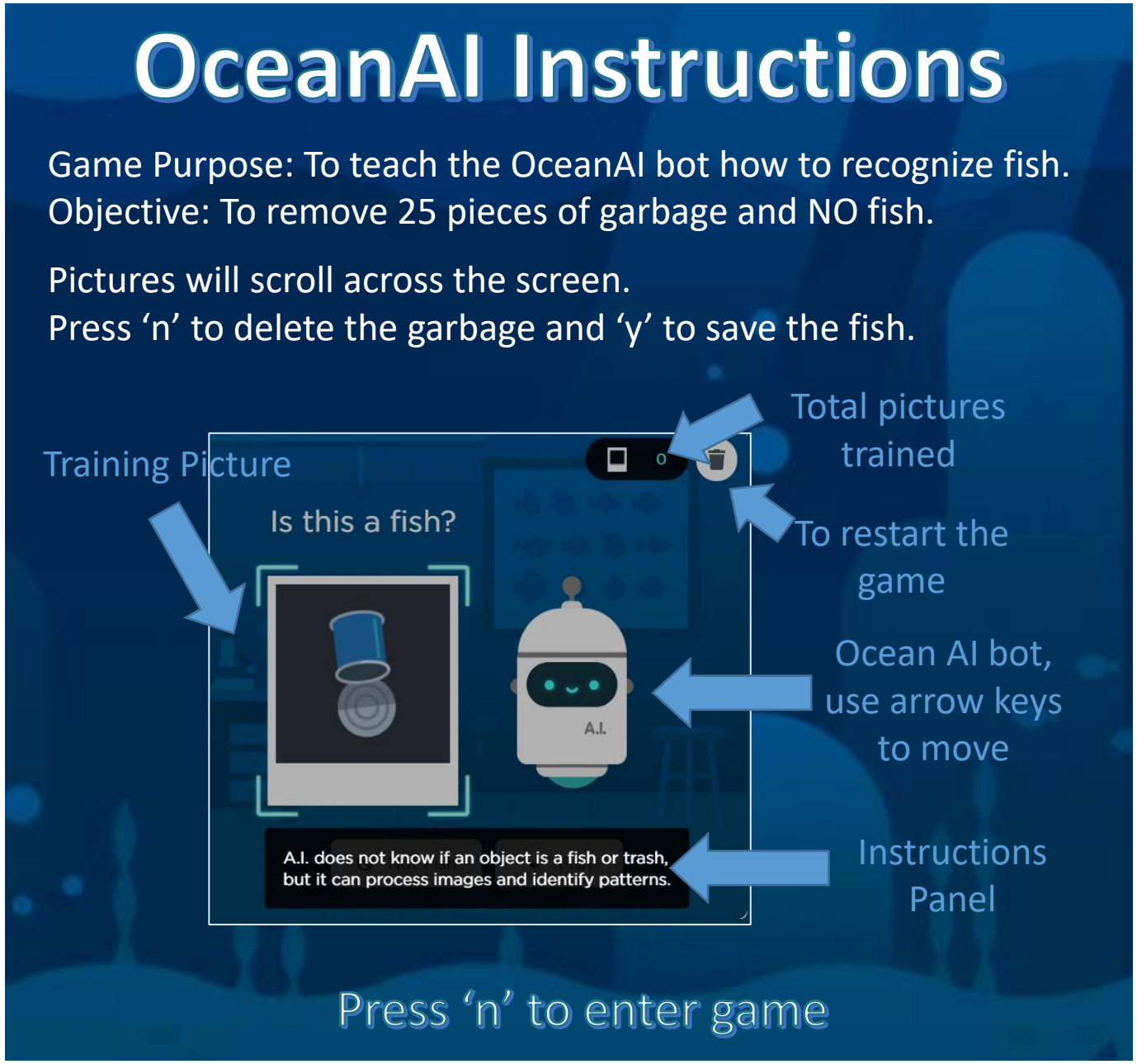
It’s easier to edit.

Keep in mind the 400 x 400 screen size

Note that it is a square!!!
Game Lab is square too.

Splash Animation

- ❑ Picture or background
- ❑ Title of game is displayed
- ❑ Coder’s name is displayed
- ❑ Key press to enter game or instructions; it works
- ❑ Colour scheme & Theme evident
- ❑ Outstanding opening screen design



Instructions Animation

- ❑ Title
- ❑ Colour scheme & Theme evident
- ❑ Game purpose & objective
- ❑ Screen snapshots
- ❑ Labelled screen snapshots
- ❑ Clear about levels’ needed
- ❑ Key press to enter game; it works
- ❑ Everything is spelled correctly
- ❑ No spelling or grammar errors.
- ❑ Pictures of game to illustrate game

Not earned:
(you’d need a second screen)

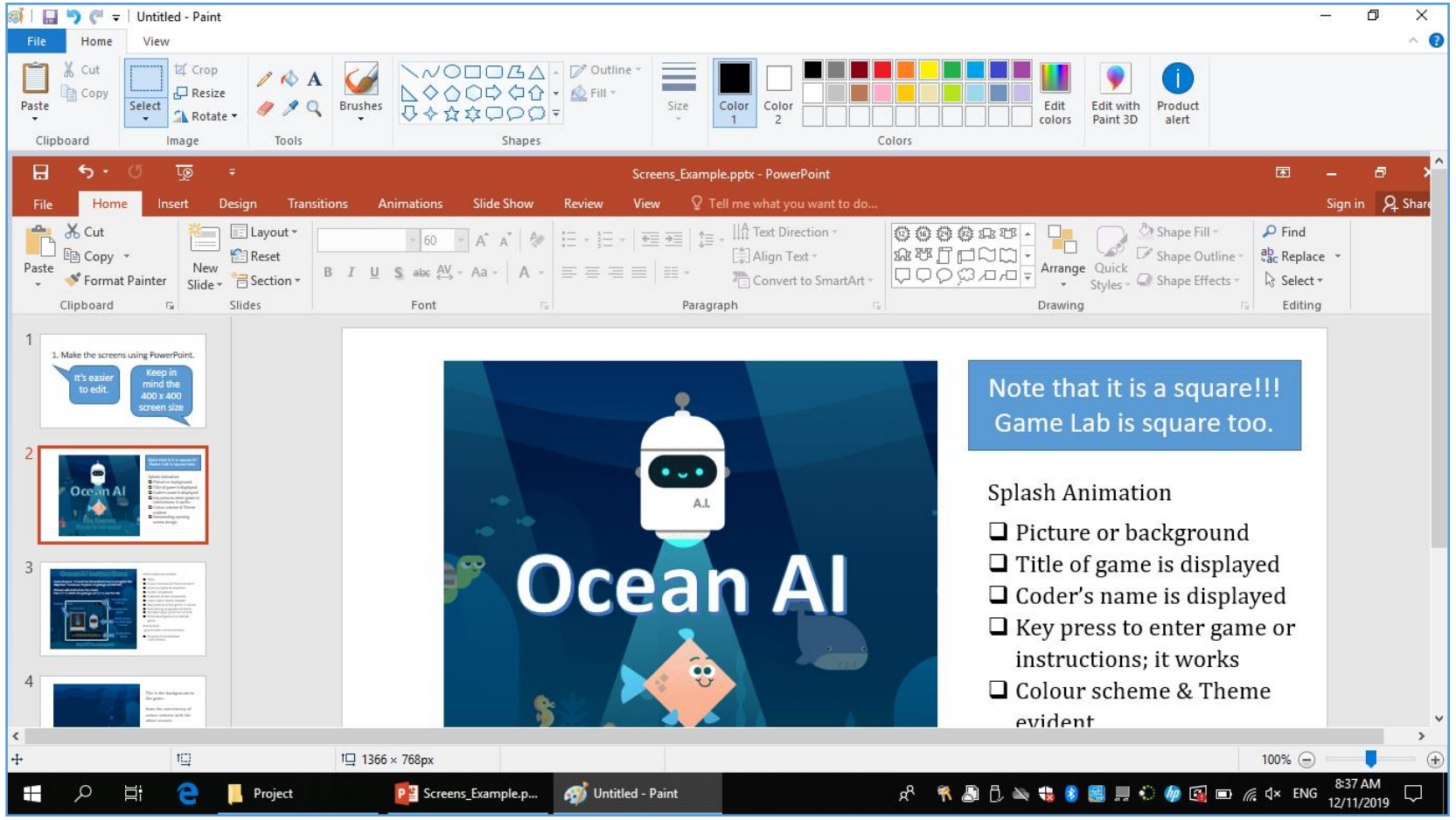
- ❑ Excellent and detailed instructions

This is the background to the game.

Note the consistency of colour scheme with the other screens.

In fact, in this example, the instructions screen was created on this background to add consistency.

2. Choose prt scr and paste into Paint.

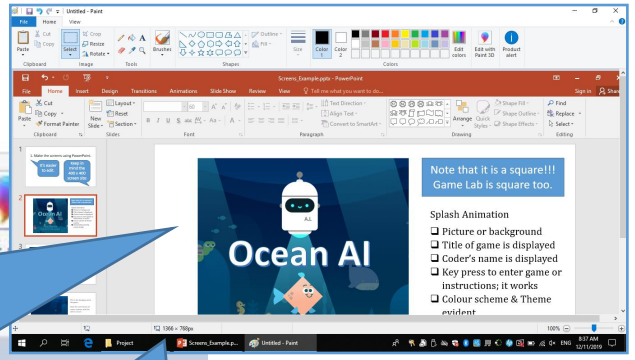


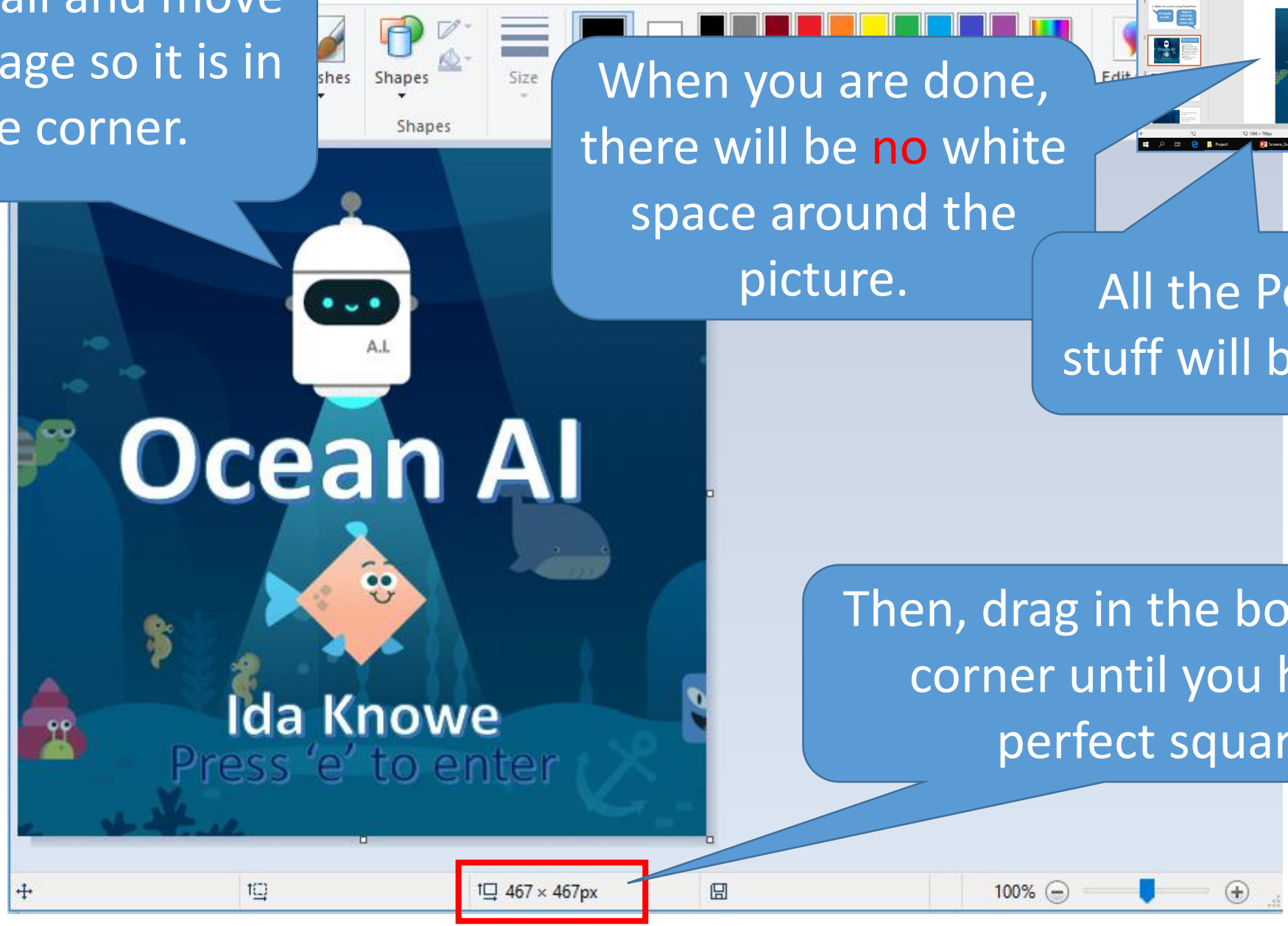
Select all and move the image so it is in the corner.

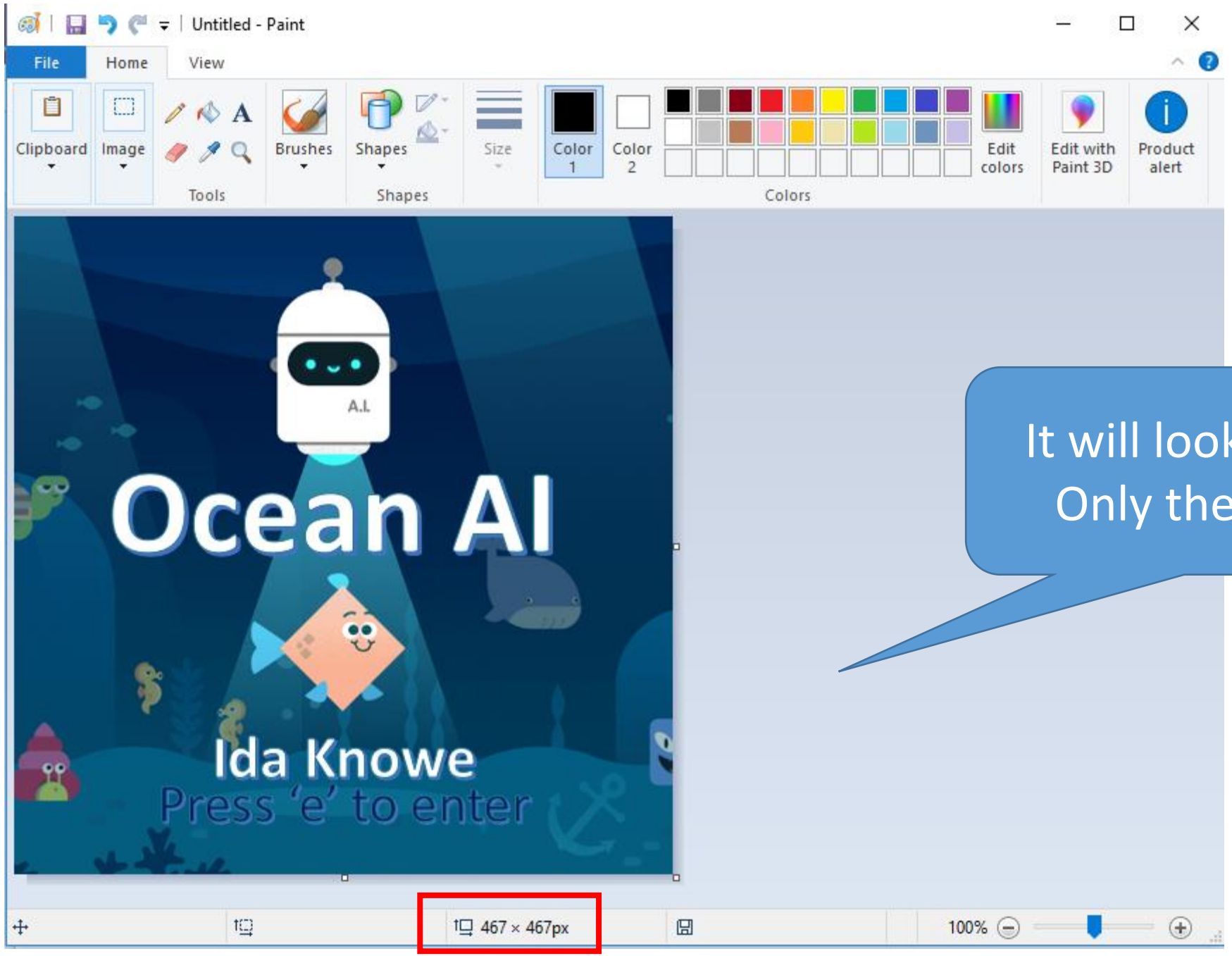
When you are done, there will be no white space around the picture.

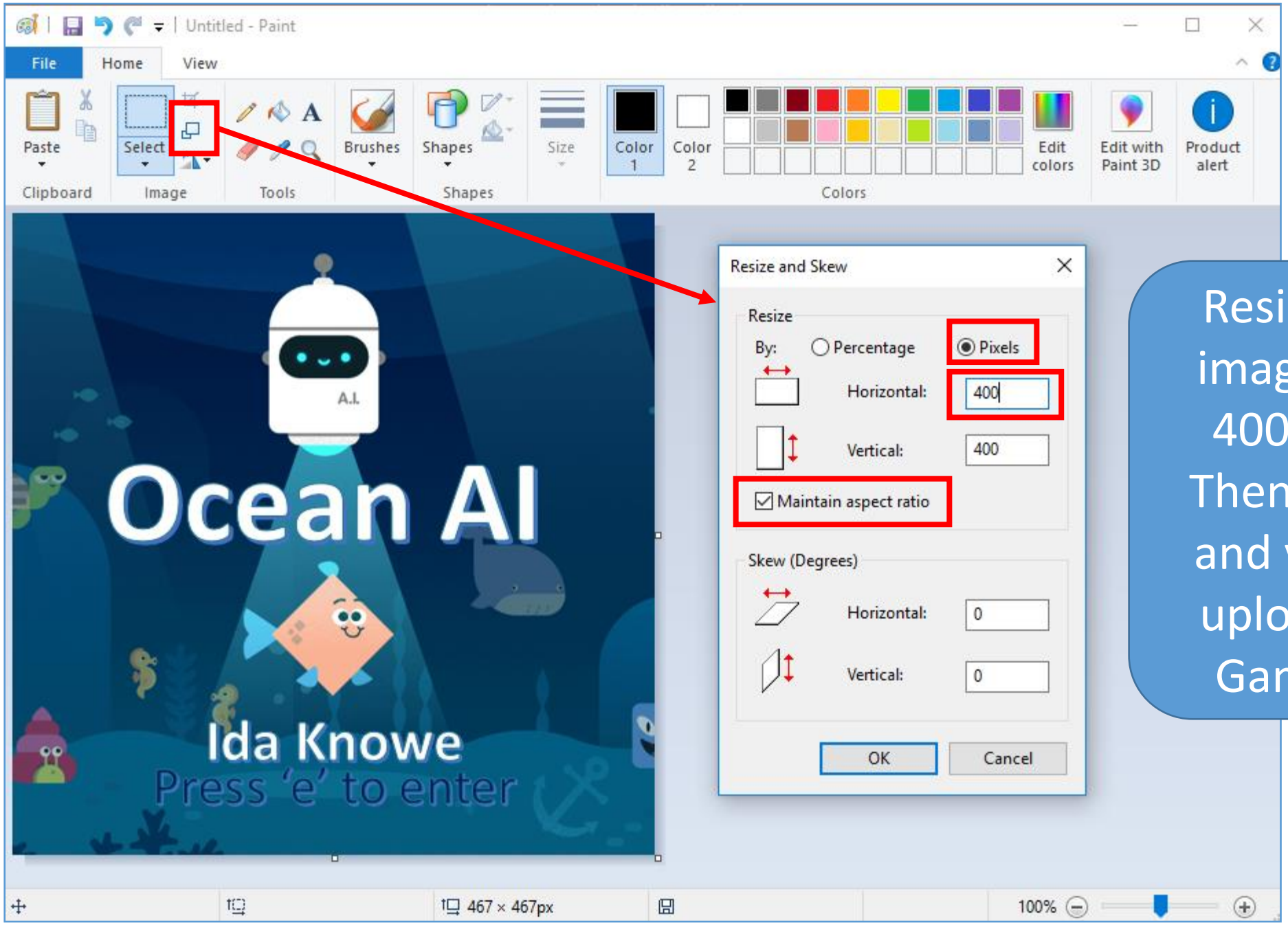
All the PowerPoint stuff will be gone too.

Then, drag in the bottom left corner until you have a perfect square.






Untitled - Paint
File
Home
View
Clipboard
Image
Tools
Brushes
Shapes
Shapes
Size
Color 1
Color 2
Edit colors
Colors
Edit with Paint 3D
Product alert
A.I.
Ocean AI
Ida Knowe
Press ‘e’ to enter
467 × 467px
100%
It will look like this.
Only the screen.



Resize your image to be 400 x 400. Then, save it and you can upload it to GameLab.

welcome

Screen 1

rules

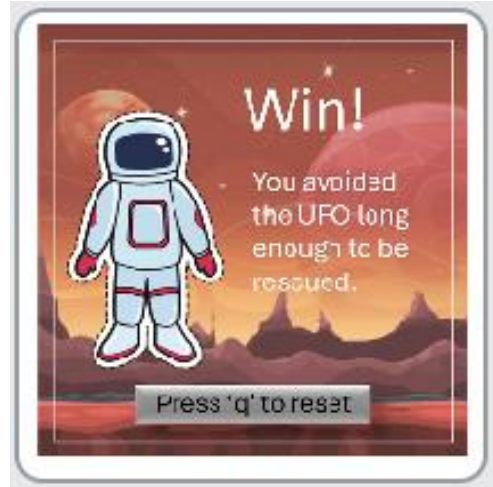
Screen 2

background

Screen 3

gameOver

Screen 4



win

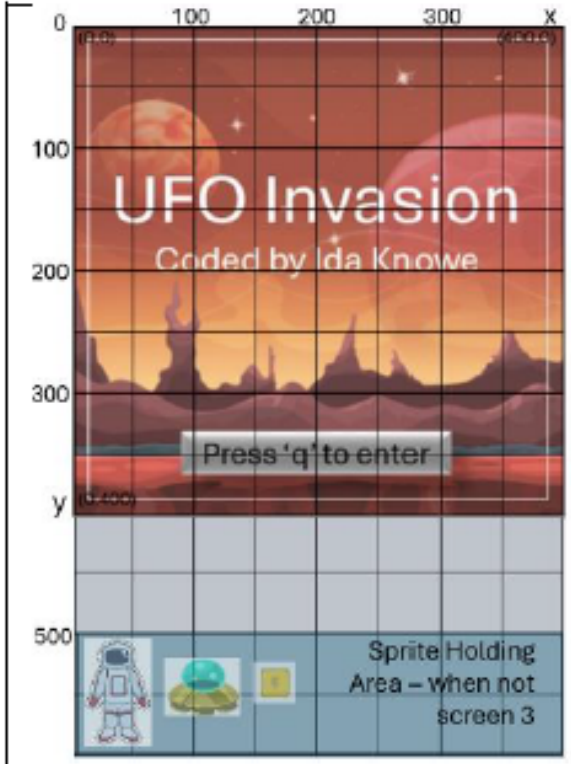
Screen 5

We will place the animation that we want into the sprite named `back` depending on the screen.

Fill in the following, based on the above information:

- The name of the sprite that holds the background is back.
- The name of the animation for screen 1 is welcome.
- The code: `back.setAnimation("rules");` will switch the background to screen # 1.
- The code: `back.setAnimation("win");` will switch the background to screen # 2.
- The code: `back.setAnimation("background");` will switch the background to screen # 3.
- The code: `back.setAnimation("gameOver");` will switch the background to screen # 4.
- The code: `back.setAnimation("welcome");` will switch the background to screen # 5.

2. We will also make functions to move the game sprites on and off the screen. The game sprites will only be showing if it is screen 3, otherwise, they will be off the screen in the "holding area".




```
function endGame(){
  //move sprites to holding area
  ufo.velocityX=0;
  ufo.velocityY=0;
  ufo.x=0;
  ufo.y=500;
  astro.x=0;
  astro.y=500;
  powerUp.x=0;
  powerUp.y=500;
}
```

T F (a) On screen 1, the game sprites will be in the holding area off screen.

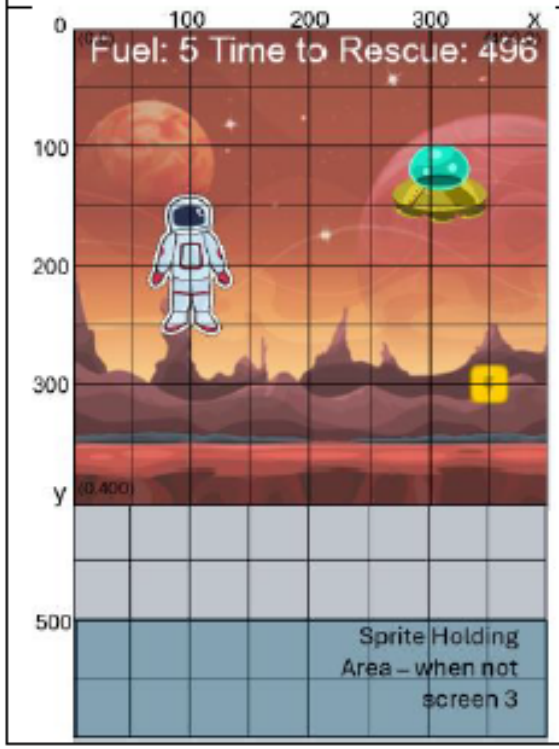
T F (b) In the function, ufo sprite doesn't move. It is still.

T F (c) The ufo sprite is off the screen.

T F (d) Four sprites are moved off the screen.

T F (e) The function's name is end.

T F (f) The function's name is endgame.




```
function startGame(){
  //move sprites to screen
  ufo.velocityX=-4;
  ufo.velocityY=4;
  ufo.x=320;
  ufo.y=120;
  astro.x=100;
  astro.y=200;
  powerUp.x=350;
  powerUp.y=300;
  fuel=5;
  timer=500;
}
```

T F (g) On screen 3, the game sprites will be in the holding area off screen.

T F (h) When screen 3 opens, the ufo starts moving to the right and down. Left & down

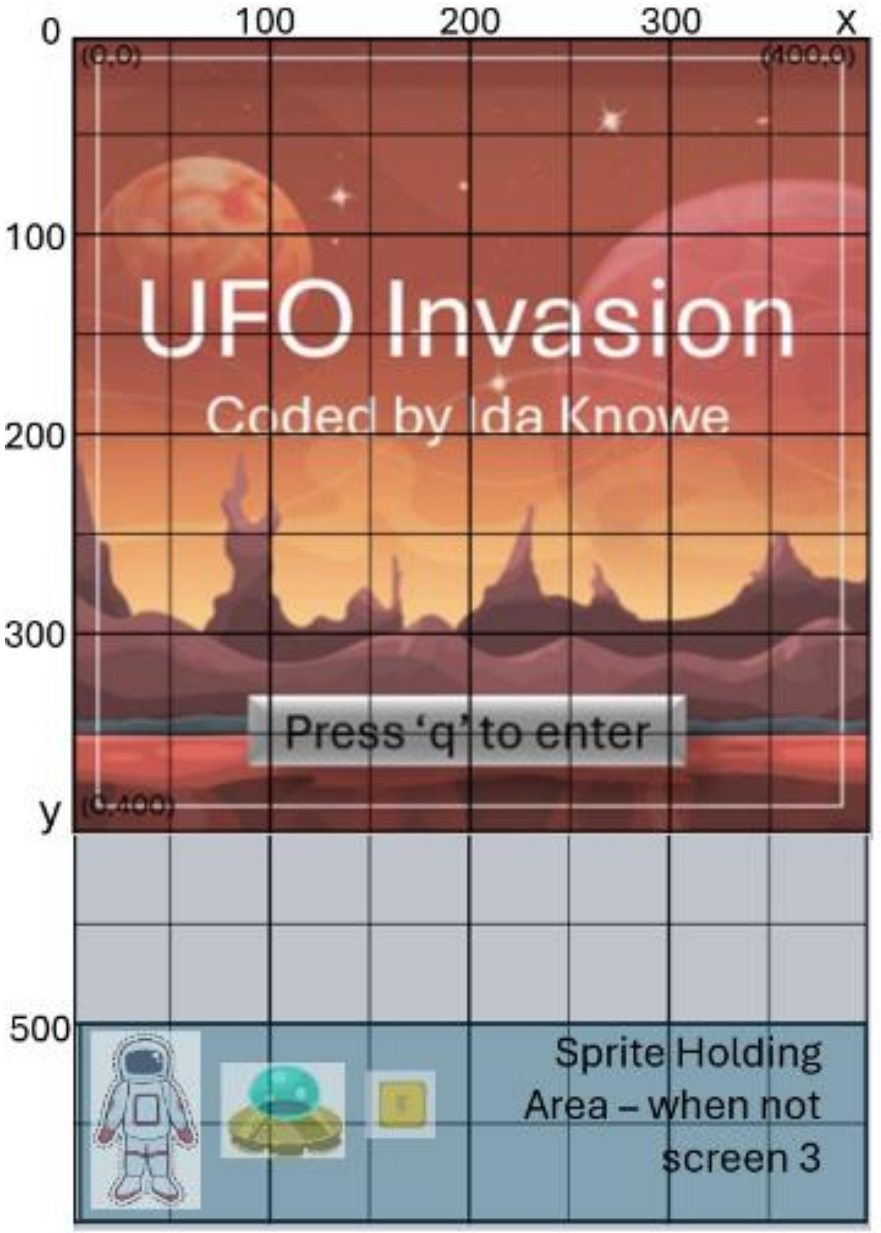
T F (i) The astronaut starts at100, 200 on screen 3.

T F (j) The fuel and timer variables are reset to start over.

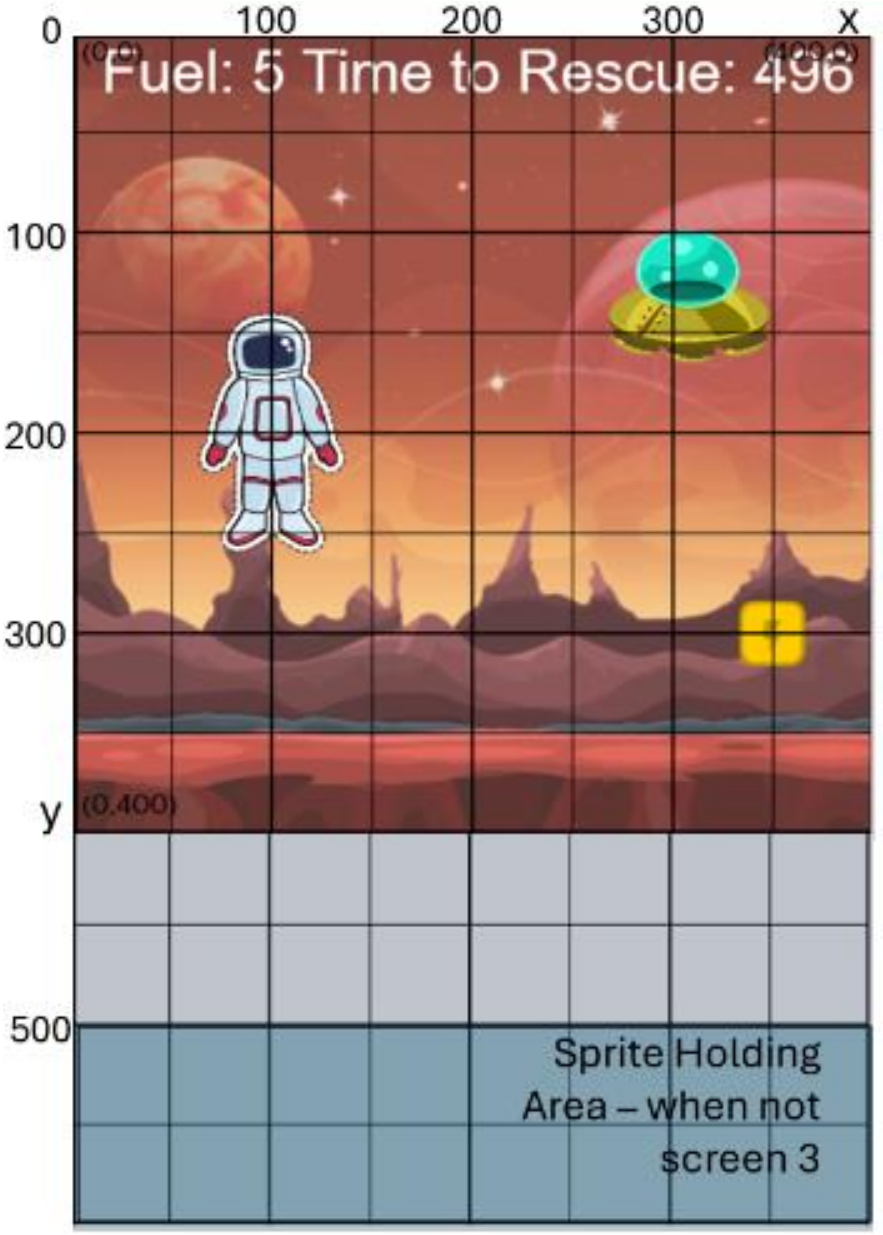
3. This is the complete code for the game. Follow t

```
//screen controls - start at #1
var screen = 1;
var back = createSprite(200, 200);
back.setAnimation("welcome");
fill("white");
textSize(30);

//game sprites - in 0,500 - holding area
var ufo = createSprite( 0 , 500 );
ufo.setAnimation("ufo");
ufo.scale = 0.2;
ufo.velocityX = 0;
ufo.velocityY = 0;
var powerUp = createSprite( 0 , 500 );
powerUp.setAnimation("powerupYellow");
var astro = createSprite( 0 , 500 );
astro.setAnimation("sticker_34_1");
astro.scale = 0.3;
createEdgeSprites();
//game variables
var timer = 500; //time to rescue
var fuel = 5; //fuel remaining
```

```
function draw() {
  //press q to move between screens
  if (keyWentDown("  q  ")) {
    if (screen == 1) {
      //on #1, move to #2-rules
      screen = 2;
      back.setAnimation("rules");
    } else if ((screen == 2)) {
      //on #2, move to #3-game
      screen =  3  ;
      back.setAnimation("  game  ");
      startGame();
    } else {
      //on #4 or #5, restart
      //move to #1-welcome
      screen =  1  ;
      back.setAnimation("  welcome  ");
      endGame();
    }
  }
  drawSprites();
  //on game screen, run playGame function
  if(screen==3){
    playGame();
  }
}
```



```
function startGame(){
   //move sprites to screen
   ufo.velocityX= -4   ;
   ufo.velocityY= 4    ;
   ufo.x=  320;
   ufo.y=  120;
   astro.x= 100  ;
   astro.y= 200  ;
   powerUp.x= 350  ;
   powerUp.y= 300  ;
   fuel= 5   ;
   timer= 500;
}
```



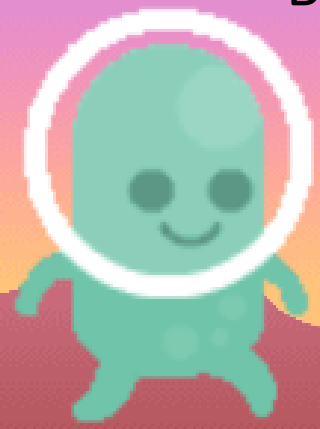
```
function endGame(){
   //move sprites off screen
   ufo.velocityX= 0   ;
   ufo.velocityY= 500 ;
   ufo.x= 0   ;
   ufo.y= 500 ;
   astro.x= 0   ;
   astro.y= 500 ;
   powerUp.x= 0   ;
   powerUp.y= 500 ;
}
```

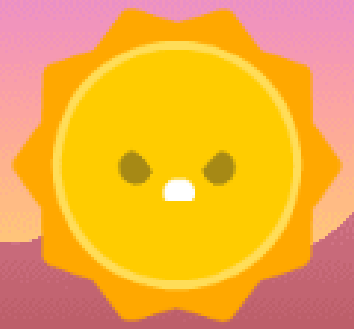
```
function playGame(){
  //move astronaut based on arrows
  if (keyDown("up")) {
    astro.y -= 5;
  } else if ((keyDown("down "))) {
    astro.y += 5;
  } else if ((keyDown("left"))) {
    astro. x    -= 5;
  } else if ((keyDown("right"))) {
    astro       .x += 5;
  }

  //ufo bounces & collison (lose fuel)
   ufo    .bounceOff(edges);
  if ( ufo  .isTouching(astro)) {
    fuel--;
    ufo.x=350;
    ufo.y=350;
  }
  //astronaut picks up fuel
  if ( astro       .isTouching(powerUp)) {
    fuel++;
    powerUp.x=randomNumber(25, 375);
    powerUp.y=randomNumber(25, 375);
  }
```

```
  //handle time passing
  timer--;

  //if the time is done, you win
  if(timer<=0){
    //move to screen #4-win
    //move off the game sprites
    screen= 4  ;
    back.setAnimation("win          ");
    timer=500;
    endGame();
  }

  //if the fuel is done, you lose
  if(fuel<=0){
    //move to screen #5-lose
    //move off the game sprites
    screen= 5  ;
    back.setAnimation("gameOver    ");
    endGame();
  }
  //update fuel and time on screen
  text("Fuel: "+fuel+" Time to Rescue:
    "+timer,15,30);
}
```

Welcome to Space Jumper!

By Ida Knowe

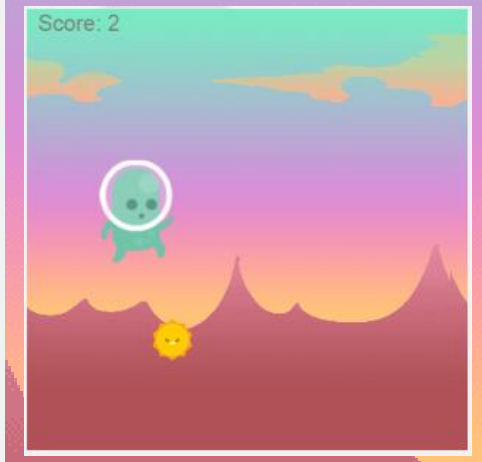




Press ‘n’ to continue

Space Jumper Rules

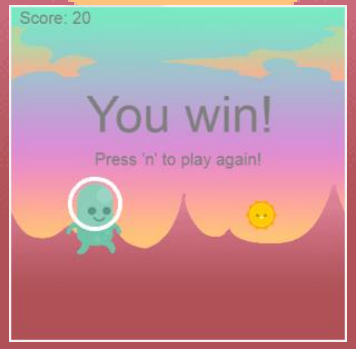
You are an alien exploring a new planet.
Avoid the fireballs you encounter!



Press the spacebar to jump over a fireball.

If you jump the fireball, and miss it completely, you get a point.
If the fireball hits you, then you lose a point.

If you can get 20 points, then you win!



Press ‘n’ to continue.

Game Title

By: Your Full Name

Press ‘q’ to continue

Instructions

Goal of the game.

How to play, with screen snapshots and arrows.

Press ‘q’ to continue


You Lose
Press ‘q’ to play again


You Win!
Press ‘q’ to play again