

Draw with code

Type-in JavaScript programs for young coders

Card 1: Flower

```
// Background
noStroke();
fill(188, 199, 231);
rect(0, 0, 800, 500);
fill(191, 144, 0);
rect(0, 500, 800, 600);

// Sun
fill("yellow");
circle(750, 50, 150);
stroke("yellow");
strokeWeight(6);
line(480, 60, 561, 47);
line(548, 224, 602, 172);
line(740, 304, 747, 236);

// Car
stroke("black");
strokeWeight(1);
fill(112, 173, 71);
rect(175, 340, 223, 54);
rect(108, 394, 362, 74);
fill(132, 60, 12);
circle(168, 468, 32);
circle(408, 468, 32);
```

Card 2: Car

```
// Background
noStroke();
fill("#d9eaf3");
rect(0, 0, 800, 300);
fill("#8fa3dc");
rect(0, 300, 800, 600);

// Mast
fill("#88420c");
rect(280, 36, 16, 321);
fill("#ff9966");
triangle(300, 36, 450, 207, 300, 264);

// Boat
fill("#7030a0");
rect(178, 357, 319, 140);
triangle(105, 357, 178, 357, 178, 497);
triangle(573, 357, 497, 497, 497, 357);

// Birds
fill("#e67d31");
triangle(520, 52, 578, 52, 553, 67);
triangle(631, 71, 677, 71, 654, 85);
triangle(723, 121, 766, 121, 743, 135);
```

Card 3: Landscape

```
noStroke();

// Background
fill("#d9eaf3");
rect(0, 0, 800, 300);
fill("#8fa3dc");
rect(0, 300, 800, 600);

// Mast
fill("#88420c");
rect(280, 36, 16, 321);
fill("#ff9966");
triangle(300, 36, 450, 207, 300, 264);

// Boat
fill("#7030a0");
rect(178, 357, 319, 140);
triangle(105, 357, 178, 357, 178, 497);
triangle(573, 357, 497, 497, 497, 357);

// Birds
fill("#e67d31");
triangle(520, 52, 578, 52, 553, 67);
triangle(631, 71, 677, 71, 654, 85);
triangle(723, 121, 766, 121, 743, 135);
```

Steps:

1. Open codeguppy.com code editor
2. Type in the program in the code editor
3. Run the program and observe the effect

Edição de Pré-visualização Preliminar

Ideal para - Hour of Code – Clubes de Codificação – Uso doméstico

Quem deve utilizar esta brochura?

Esta brochura destina-se a ser um recurso de codificação para pais, professores de informática e instrutores de clubes de codificação. O livrinho contém programas divertidos em JavaScript para jovens codificadores.

Esta brochura é um recurso muito valioso para introduzir as crianças na codificação. Não é necessária experiência prévia de codificação para crianças... ou pais/educadores.

Como utilizar esta brochura?

Por favor, certifique-se de que todas as crianças têm contas grátis criadas em codeguppy.com depois:

- Imprima este folheto e partilhe os programas impressos com as crianças. Cada página contém um programa completo, pelo que só se pode partilhar uma página de cada vez com cada criança.
- Peça às crianças para digitarem os programas no editor de código de codeguppy.com e depois execute-o com o botão “Run”.
- Encoraje as crianças a personalizar o programa mudando as cores ou adicionando formas.

Dicas para digitar os programas

Programas de digitação a partir de um pedaço de papel é uma ótima maneira de ensinar as crianças sobre codificação. Uma vez que a digitação do programa requer atenção aos detalhes, as crianças também desenvolverão competências úteis para além da codificação.

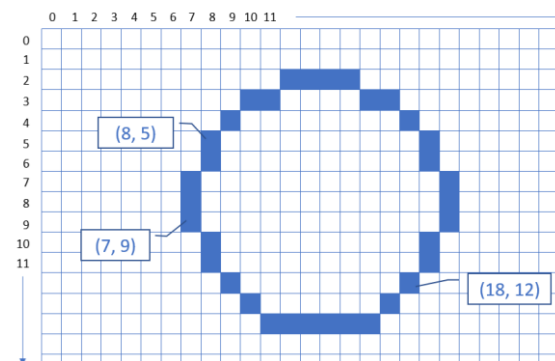
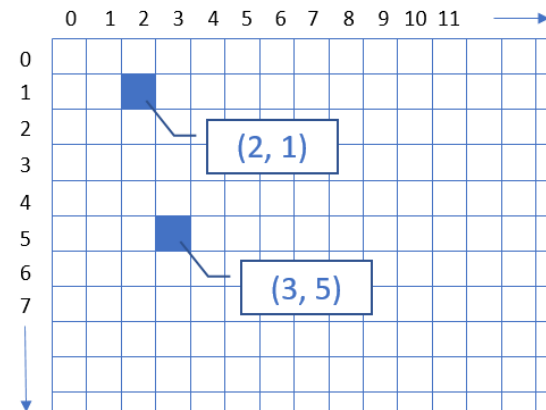
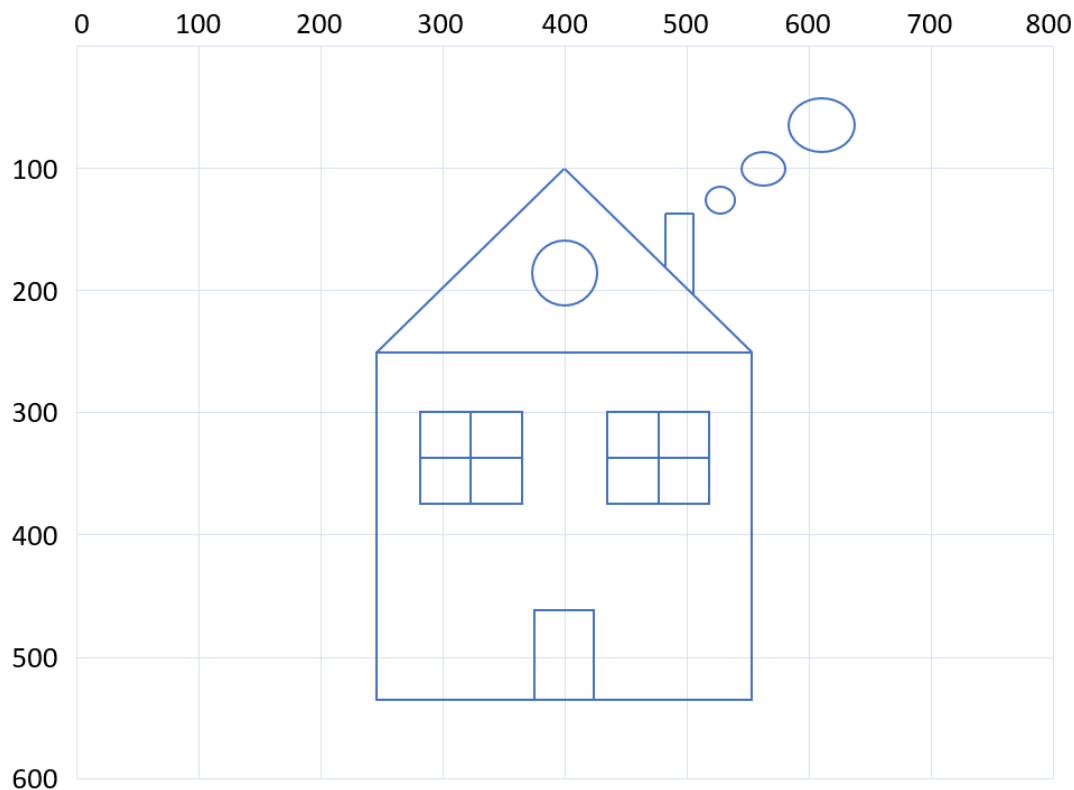
Aqui estão algumas dicas para garantir que os programas são digitados corretamente:

- Por favor, peça às crianças para digitarem cada programa com muito cuidado exatamente como aparece no papel. Diga-lhes para não saltarem nenhuma letra, número ou sinal de pontuação!
- Os programas são sensíveis a maiúsculas e minúsculas. Por favor, peça às crianças para digitarem todos os comandos usando o mesmo caso que aparece no papel.
- Para evitar a acumulação de erros, pode pedir às crianças para executarem o programa de vez em quando. Executar um programa é tão fácil como premir o grande botão “Run” no canto superior direito do editor de código.
- Se o computador emitir erros, por favor verifique juntamente com as crianças o programa digitado em comparação com o programa no papel.

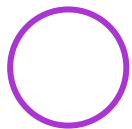
Compreender os programas

Todos os programas incluídos neste folheto são para desenhar numa tela. A tela é composta por muitos pequenos pontos que se podem mudar para preto ou branco ou mesmo colori-los através de código. Estes pontos são chamados píxeis.

De certa forma, a tela é como o papel gráfico (papel quadriculado), sendo cada quadrado de papel quadriculado um pequeno pixel sobre a tela. A tela utilizada pelos nossos programas tem 800 píxeis de largura por 600 píxeis de altura.



Comandos gráficos



circle(x, y, raio)

circle(400, 300, 100)
circle(400, 300, 50)



ellipse(x, y, largura, altura)

ellipse(400, 300, 200, 200)
ellipse(400, 300, 100, 50)



line(x1, y1, x2, y2)

line(100, 100, 700, 100)
line(50, 550, 750, 550)



rect(x, y, width, height)

rect(400, 300, 300, 200)
rect(350, 350, 300, 200)



point(x, y)

point(0, 0)
point(400, 300)



triangle(x1, y1, x2, y2, x3, y3)

triangle(400, 200, 300, 450, 500, 450)

Definir a cor para o desenho

noStroke()
stroke(cor)
strokeWeight(peso)


Definir a cor para preenchimento

background(cor)
fill(cor)
noFill()


Especificar a cor


- #RRGGBB (red, green, blue components)
- Predefined color


Cores populares


 IndianRed, LightCoral, Salmon, DarkSalmon, LightSalmon, Crimson, Red, FireBrick, DarkRed


 Pink, LightPink, HotPink, DeepPink, MediumVioletRed, PaleVioletRed


 LightSalmon, Coral, Tomato, OrangeRed, DarkOrange, Orange


 Gold, Yellow, LightYellow, LemonChiffon, LightGoldenrodYellow, PapayaWhip, Moccasin, PeachPuff, PaleGoldenrod, Khaki, DarkKhaki

 Lavender, Thistle, Plum, Violet, Orchid, Fuchsia, Magenta, MediumOrchid, MediumPurple, RebeccaPurple, BlueViolet, DarkViolet, DarkOrchid, DarkMagenta, Purple, Indigo, SlateBlue, DarkSlateBlue, MediumSlateBlue

 GreenYellow, Chartreuse, LawnGreen, Lime, LimeGreen, PaleGreen, LightGreen, MediumSpringGreen, SpringGreen, MediumSeaGreen, SeaGreen, ForestGreen, Green, DarkGreen, YellowGreen, OliveDrab, Olive, DarkOliveGreen, MediumAquamarine, DarkSeaGreen, LightSeaGreen, DarkCyan, Teal

 Aqua, Cyan, LightCyan, PaleTurquoise, Aquamarine, Turquoise, MediumTurquoise, DarkTurquoise, CadetBlue, SteelBlue, LightSteelBlue, PowderBlue, LightBlue, SkyBlue, LightSkyBlue, DeepSkyBlue, DodgerBlue, CornflowerBlue, MediumSlateBlue, RoyalBlue, Blue, MediumBlue, DarkBlue, Navy, MidnightBlue

 Cornsilk, BlanchedAlmond, Bisque, NavajoWhite, Wheat, BurlyWood, Tan, RosyBrown, SandyBrown, Goldenrod, DarkGoldenrod, Peru, Chocolate, SaddleBrown, Sienna, Brown, Maroon

 White, Snow, HoneyDew, MintCream, Azure, AliceBlue, GhostWhite, WhiteSmoke, SeaShell, Beige, OldLace, FloralWhite, Ivory, AntiqueWhite, Linen, LavenderBlush, MistyRose

 Gainsboro, LightGray, Silver, DarkGray, Gray, DimGray, LightSlateGray, SlateGray, DarkSlateGray, Black

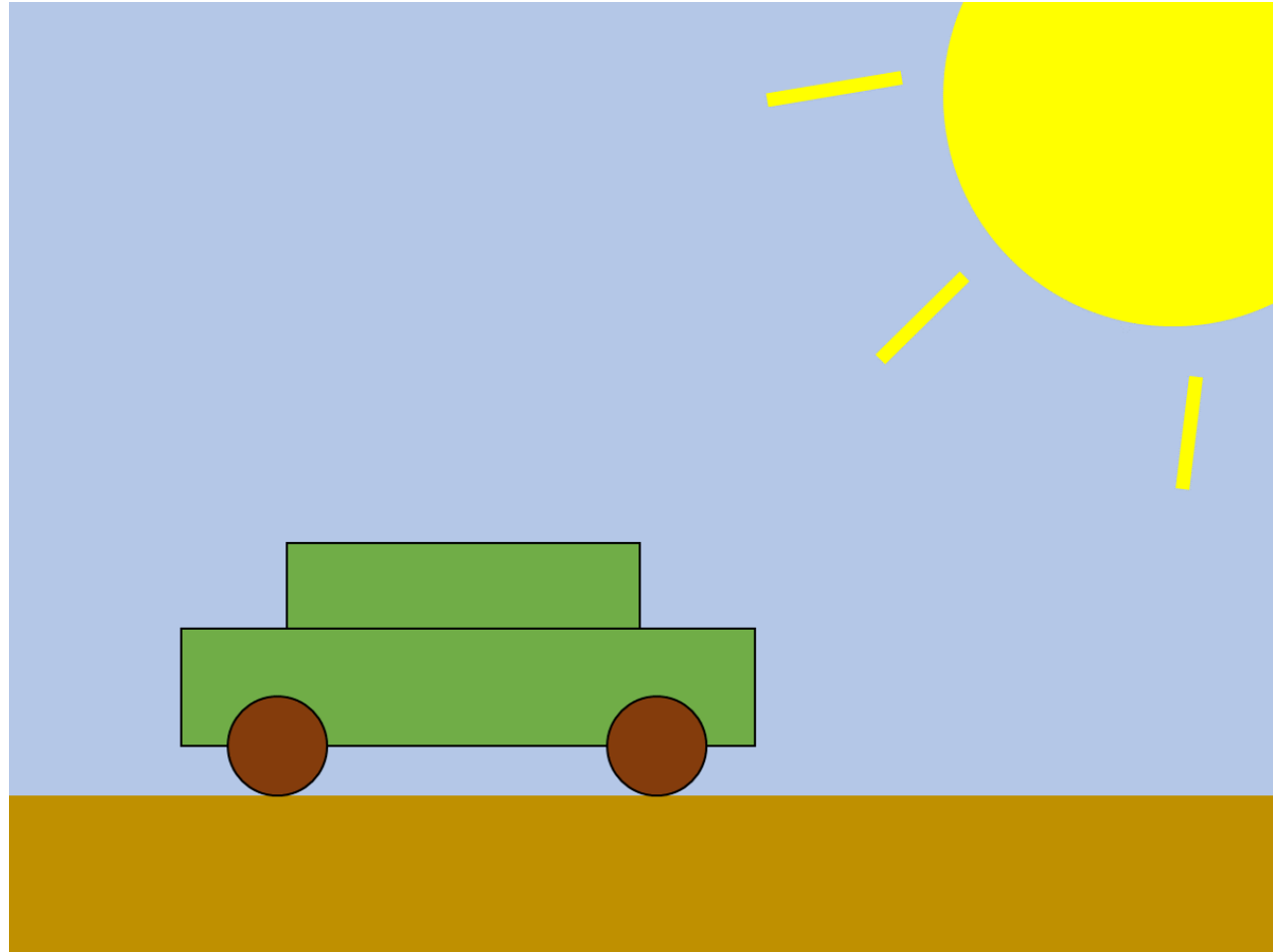
Carro

Type-in JavaScript Program

```
// Background
noStroke();
fill(180, 199, 231);
rect(0, 0, 800, 500);
fill(191, 144, 0);
rect(0, 500, 800, 600);

// Sun
fill("yellow");
circle(750, 50, 150);
stroke("yellow");
strokeWeight(6);
line(480, 60, 561, 47);
line(548, 224, 602, 172);
line(740, 304, 747, 236);

// Car
stroke("black");
strokeWeight(1);
fill(112, 173, 71);
rect(175, 340, 223, 54);
rect(108, 394, 362, 74);
fill(132,60,12);
circle(168, 468, 32);
circle(408, 468, 32);
```



1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

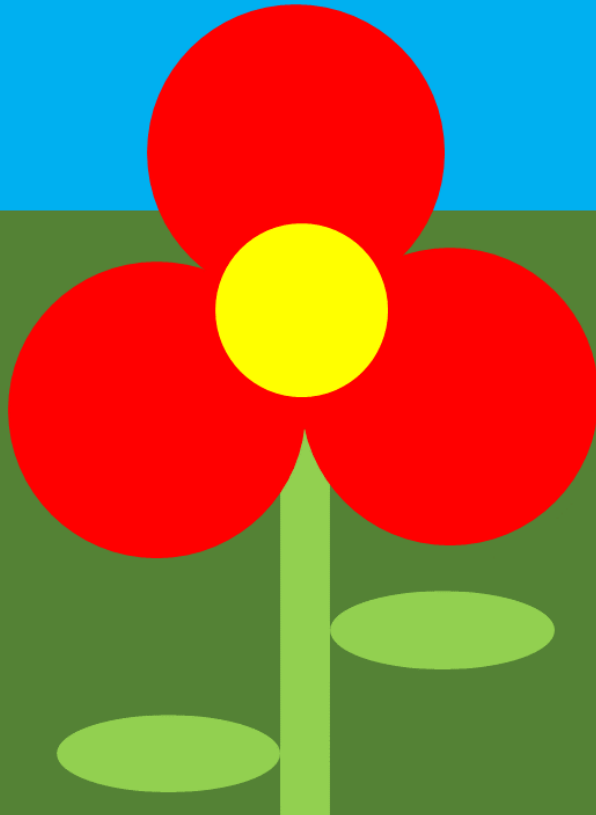
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Flor

Type-in JavaScript Program



```
// Background
noStroke();
fill(0, 176, 240);
rect(0, 0, 800, 200);
fill(84, 130, 53);
rect(0, 200, 800, 600);

// Stem
fill(146, 208, 80);
rect(277, 313, 30, 237);
ellipse(215, 514, 124, 46);
ellipse(374, 438, 134, 46 );

// Flower
fill("red");
circle(290, 160, 87);
circle(209, 314, 87);
circle(377, 307, 87);
fill("yellow");
circle(290, 260, 46);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

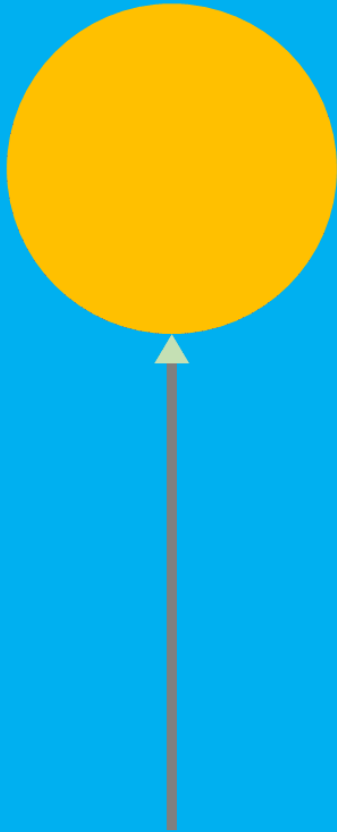
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Balão

Type-in JavaScript Program



```
background("#00b0f0");  
  
// String  
stroke("#7f7f7f");  
strokeWeight(3);  
line(263, 280, 263, 548);  
  
// Balloon  
noStroke();  
fill("#ffc000");  
triangle(255, 289,  
         263, 272,  
         271, 289);  
circle(263, 172, 100);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Boneco de neve

Type-in JavaScript Program

```
background("#8faadc");

// Right hand
stroke("#843c0c");
strokeWeight(10);
line(604, 359, 495, 291);
line(604, 359, 607, 378);
line(604, 359, 627, 367);
line(604, 359, 627, 355);

// Body
stroke("#335693");
strokeWeight(1);
fill("white");
circle(400, 445, 126);
circle(400, 285, 99);
circle(400, 151, 68);

// Eyes
fill("black");
noStroke();
circle(366, 124, 10);
circle(428, 124, 10);
```

```
// Mouth
circle(362, 179, 6);
circle(379, 197, 6);
circle(403, 201, 6);
circle(428, 199, 6);

// Buttons
circle(407, 267, 10);
circle(407, 320, 10);
circle(407, 433, 10);
circle(407, 502, 10);

// Nose and hat
fill("#ffc000");
triangle(397, 161, 401, 176, 483, 146);
fill("#c55a11");
triangle(321, 125, 353, 39, 434, 73);

// Left hand
stroke("#843c0c");
strokeWeight(10);
line(225, 168, 323, 265);
line(225, 168, 196, 171);
line(225, 168, 201, 157);
line(225, 168, 216, 135);
```



1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Casa

Type-in JavaScript Program



```
// Background
noStroke();
fill("#00b0f0");
rect(0, 0, 800, 400);
fill("#548235");
rect(0, 400, 800, 600);

fill("#ffc740");
rect(109, 254, 325, 274);

// Left window
stroke("#c55a11");
strokeWeight(3);
fill("#dae3f3");
square(147, 302, 56);
line(175, 302, 175, 358);
line(147, 330, 203, 330);

// Right window
square(347, 302, 56);
line(375, 302, 375, 358);
line(347, 330, 403, 330);
```

```
// Door
strokeWeight(1);
fill("#ed7d31");
rect(229, 417, 90, 110);
fill("#bfbfbf");
circle(305, 471, 8);

// Horn
noStroke();
fill("#843c0c");
rect(174, 117, 24, 80);

// Roof
fill("#ed7d31");
triangle(109, 254, 272, 75, 434, 254);

// Sun
fill("yellow");
circle(750, 50, 150);
stroke("yellow");
strokeWeight(6);
line(480, 60, 561, 47);
line(548, 224, 602, 172);
line(740, 304, 747, 236);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Casa 2

Type-in JavaScript Program



```
// Background
noStroke();
fill("#8faadc");
rect(0, 0, 800, 300);
fill("#548235");
rect(0, 300, 800, 600);

// Tree
fill("#843c0c");
rect(104, 240, 28, 190);
fill("#548235");
ellipse(119, 139, 172, 229);
```

```
// House
fill("#ffc000");
rect(272, 260, 380, 227);

// Roof
fill("#843c0c");
triangle(252, 260, 460, 110, 670, 260);

// Left window
stroke("#c55a11");
strokeWeight(3);
fill("#dae3f3");
square(295, 287, 96);
line(343, 287, 343, 383);
line(295, 335, 391, 335);

// Right window
square(535, 287, 96);
line(583, 287, 583, 383);
line(535, 335, 631, 335);
```

```
// Door
fill("#c55a11");
rect(415, 330, 95, 155);

// Sun
fill("#ffc000");
stroke("#ffc000");
circle(700, 100, 32);
line(631, 100, 658, 100);
line(659, 43, 673, 59);
line(729, 61, 743, 42);
line(750, 106, 770, 106);
line(729, 141, 742, 155);
line(674, 139, 660, 155);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

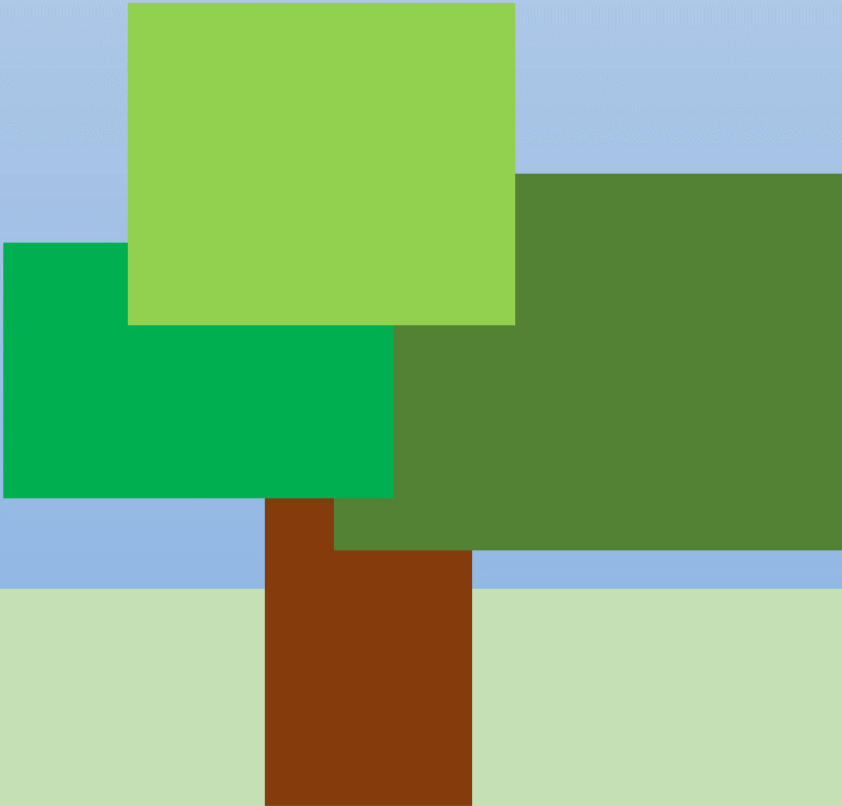
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Árvore Quadrada

Type-in JavaScript Program



```
noStroke();

// Background
fill("#aac6e7");
rect(0, 0, 800, 400);
fill("#c5e0b4");
rect(0, 400, 800, 600);

// Trunk
fill("#843c0c");
rect(212, 330, 120, 190);

// Leaves
fill("#548235");
rect(255, 158, 300, 220);
fill("#00b050");
rect(57, 197, 230, 150);
fill("#92d050");
rect(130, 55, 230, 190);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

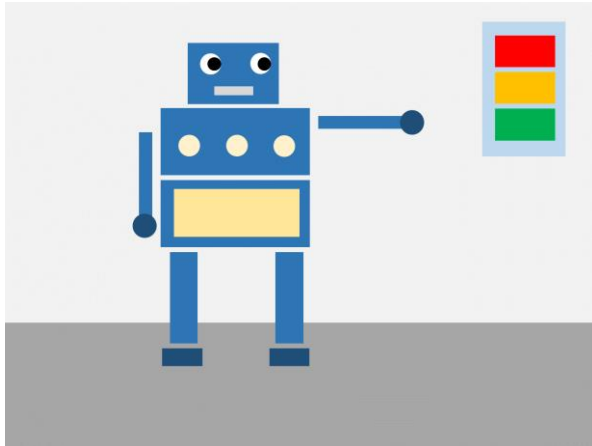
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Robô

Type-in JavaScript Program



```
noStroke();  
  
// Background  
fill("#efefef");  
rect(0, 0, 800, 430);  
fill("#a7a7a7");  
rect(0, 430, 800, 600);  
  
// Head and body  
fill("#2e75b6");  
rect(249, 54, 122, 83);  
rect(211, 142, 200, 90);  
rect(211, 240, 200, 90);
```

```
// Legs  
rect(224, 338, 36, 124);  
rect(368, 338, 36, 124);  
  
// Arms  
rect(182, 176, 16, 118);  
rect(426, 155, 118, 16);  
  
// Feet and hands  
fill("#1f4e79");  
rect(214, 468, 55, 25);  
rect(359, 468, 55, 25);  
circle(190, 300, 15);  
circle(553, 162, 15);  
  
// Eyes  
fill("white");  
circle(278, 83, 14);  
circle(347, 83, 14);  
fill("black");  
circle(283, 83, 9);  
circle(352, 83, 9);
```

```
// Mouth  
fill("#d8d8d8");  
rect(285, 113, 53, 13);  
  
// Decorations  
fill("#fff2cc");  
circle(250, 195, 12);  
circle(315, 195, 12);  
circle(380, 195, 12);  
fill("#ffe699");  
rect(230, 250, 165, 65);  
  
// Lights  
fill("#bdd7ee");  
rect(638, 28, 104, 175);  
fill("red");  
rect(650, 45, 80, 42);  
fill("#ffc000");  
rect(650, 95, 80, 42);  
fill("#00b050");  
rect(650, 145, 80, 42);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

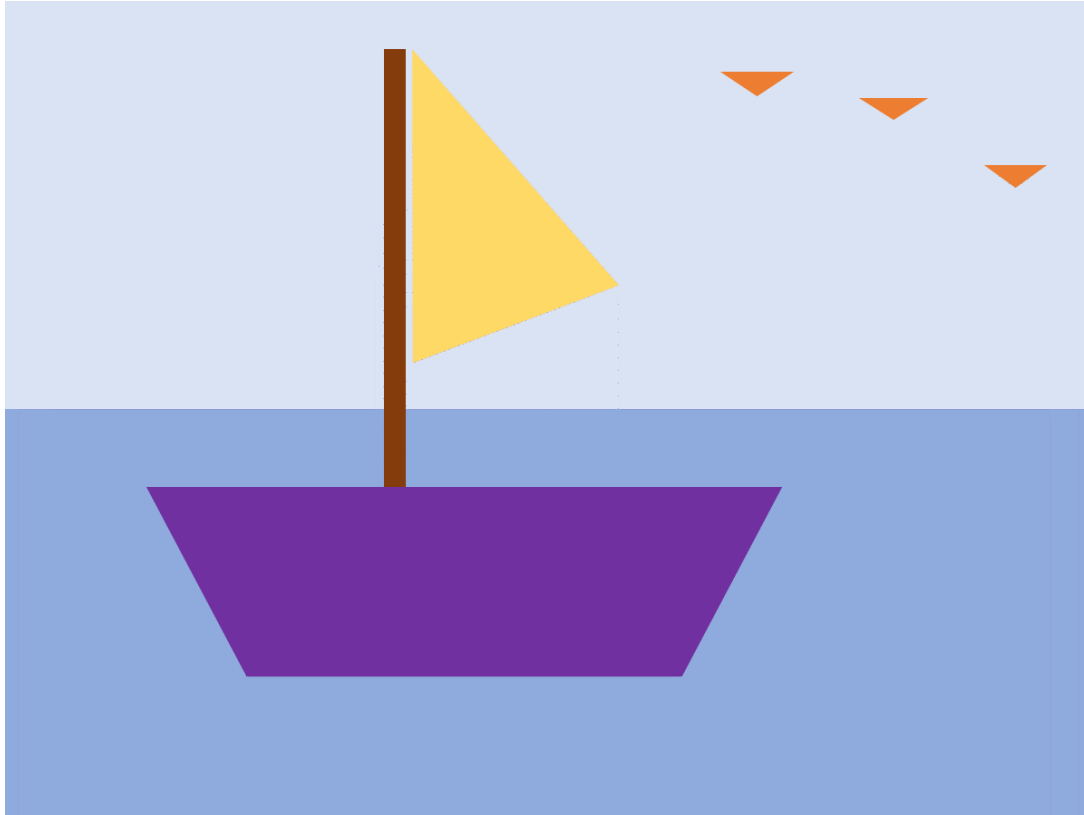
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Barco

Type-in JavaScript Program



```
noStroke();

// Background
fill("#dae3f3");
rect(0, 0, 800, 300);
fill("#8faadc");
rect(0, 300, 800, 600)

// Mast
fill("#843c0c");
rect(280, 36, 16, 321);
fill("#ffd966");
triangle(300, 36, 450, 207, 300, 264);

// Boat
fill("#7030a0");
rect(178, 357, 319, 140);
triangle(105, 357, 178, 357, 178, 497);
triangle(573, 357, 497, 497, 497, 357);

// Birds
fill("#ed7d31");
triangle(529, 52, 578, 52, 553, 67);
triangle(631, 71, 677, 71, 654, 85);
triangle(722, 121, 766, 121, 743, 135);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Smile

Type-in JavaScript Program



```
noStroke();  
background("#548235");  
  
fill("#ffc000");  
circle(400, 300, 200);  
  
fill("black");  
circle(314, 206, 25);  
circle(504, 206, 25);  
  
fill("#c00000");  
arc(400, 340, 238, 196, 0, 180);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

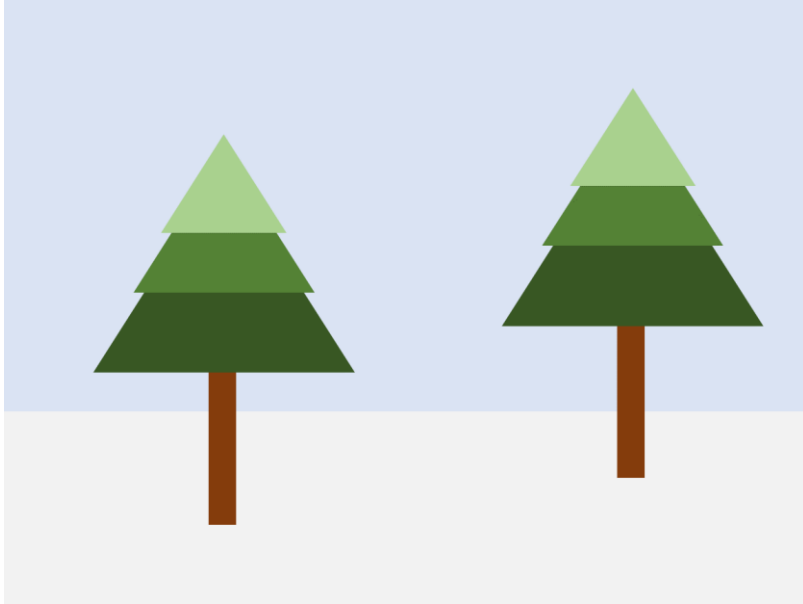
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Pinheiros

Type-in JavaScript Program



```
noStroke();

// Background
fill("#dae3f3");
rect(0, 0, 800, 400);
fill("#f2f2f2");
rect(0, 400, 800, 200);

// First tree
fill("#843c0c");
rect(205, 368, 26, 151);
fill("#385723");
triangle(220, 165, 90, 370, 350, 370);
fill("#538234");
triangle(220, 149, 130, 290, 309, 290);
fill("#a9d18e");
triangle(220, 134, 158, 230, 281, 230);

// Second tree
fill("#843c0c");
rect(205+405, 368-45, 26, 151);
fill("#385723");
triangle(220+405, 165-45, 90+405, 370-45, 350+405, 370-45);
fill("#538234");
triangle(220+405, 149-45, 130+405, 290-45, 309+405, 290-45);
fill("#a9d18e");
triangle(220+405, 134-45, 158+405, 230-45, 281+405, 230-45);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Cogumelo

Type-in JavaScript Program



```
noStroke();

// Background
fill("#a9d18e");
rect(0, 0, 800, 400);
fill("#843c0c");
rect(0, 400, 800, 200);

// Mushroom
fill("#ffc000");
rect(328, 314, 72, 212);
fill("#c00000");
arc(365, 314, 386, 396, 180, 360);
fill("white");
circle(245, 271, 20);
circle(285, 195, 18);
circle(341, 167, 12);
circle(423, 171, 14);
circle(491, 233, 14);
circle(335, 249, 13);
circle(393, 220, 22);
circle(443, 279, 23);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

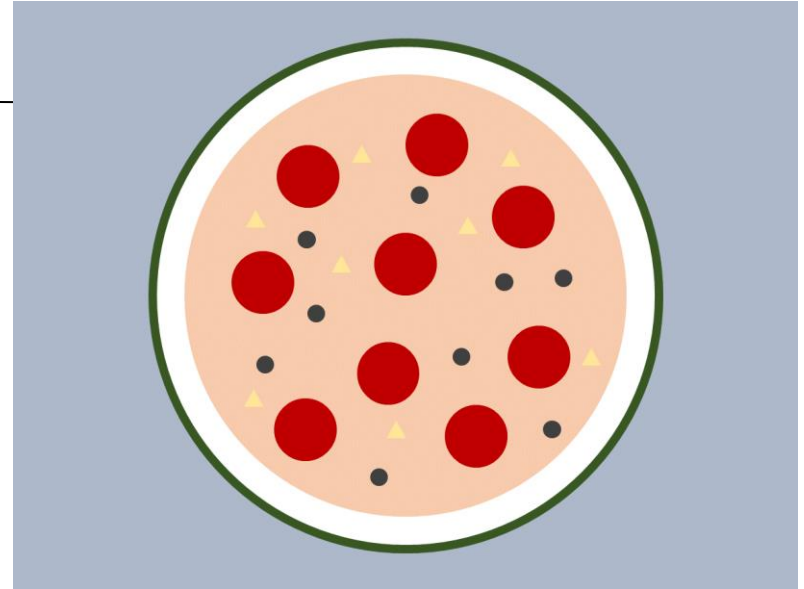
Pressione "Run" e divirta-se

Piza

Type-in JavaScript Program

```
noStroke();  
background("#adb9ca");  
  
// Plate and pizza  
fill("#385723");  
circle(400, 300, 260);  
fill("white");  
circle(400, 300, 254);  
fill("#f7c9ab");  
circle(400, 300, 225);  
  
// Pepperoni  
fill("#c00000");  
circle(300, 180, 30);  
circle(433, 150, 30);  
circle(521, 221, 30);  
circle(536, 365, 30);  
circle(469, 445, 30);  
circle(296, 439, 30);  
circle(256, 289, 30);  
circle(399, 268, 30);  
circle(385, 381, 30);
```

```
// Olives  
fill("#404040");  
circle(257, 370, 9);  
circle(309, 319, 9);  
circle(300, 243, 9);  
circle(415, 196, 9);  
circle(501, 286, 9);  
circle(563, 282, 9);  
circle(457, 362, 9);  
circle(373, 485, 9);  
circle(257, 370, 9);  
circle(550, 435, 9);  
  
// Pineapple  
fill("#ffe699");  
triangle(249, 212, 239, 229, 259, 229);  
triangle(357, 144, 347, 161, 367, 161);  
triangle(508, 150, 498, 167, 518, 167);  
triangle(337, 258, 327, 275, 347, 275);  
triangle(465, 219, 455, 236, 475, 236);  
triangle(391, 427, 381, 444, 401, 444);  
triangle(590, 353, 580, 370, 600, 370);  
triangle(438, 481, 428, 498, 448, 498);  
triangle(246, 395, 236, 412, 256, 412);
```



1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Rato

Type-in JavaScript Program



```
background("#a6cf87");
noStroke();

// Head and ears
fill("#c55a11");
triangle(242, 192, 556, 192, 400, 500);
circle(272, 171, 85);
circle(542, 171, 85);
fill("#242424");
triangle(347, 395, 453, 395, 400, 500);

// Eyes
fill("white");
circle(344, 260, 25);
circle(455, 260, 25);
fill("black");
circle(355, 268, 8);
circle(448, 268, 8);

// Whiskers
stroke("#242424");
strokeWeight(3);
line(282, 403, 345, 427);
line(287, 485, 345, 462);
line(450, 427, 502, 416);
line(442, 455, 504, 486);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Comboio

Type-in JavaScript Program

```
// Background
noStroke();
fill("#8faadc");
rect(0, 0, 800, 340);
fill("#a9d18e");
rect(0, 340, 800, 260);

// Main part
fill("#c55a11");
triangle(127, 428, 252, 428, 252, 300);
rect(502, 215, 175, 213);
rect(283, 258, 14, 42);
fill("#ffc000");
rect(252, 300, 250, 128);

// Windows
fill("#f8cbad");
rect(523, 236, 55, 58);
rect(584, 236, 74, 58);
rect(523, 300, 135, 96);
```



```
// Wheels
fill("#262626");
circle(260, 454, 38);
circle(598, 454, 38);
fill("#d9d9d9");
circle(260, 454, 19);
circle(598, 454, 19);
fill("#262626");
rect(249, 443, 344, 10);
```

```
// Road and smoke
fill("#3b3838");
rect(0, 492, 800, 28);
fill("#f2f2f2");
ellipse(316, 209, 29, 20);
ellipse(377, 166, 46, 32);
ellipse(442, 114, 68, 47);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

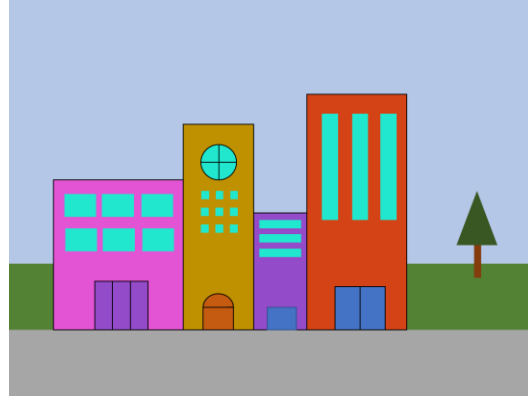
Pressione "Run" e divirta-se

Cidade

Type-in JavaScript Program

```
// Background
noStroke();
fill("#b4c7e7");
rect(0, 0, 800, 400);
fill("#548235");
rect(0, 400, 800, 100);
fill("#a5a5a5");
rect(0, 500, 800, 100);
```

```
// Building 1
stroke(1);
fill("#e254d4");
rect(67, 272, 197, 228);
fill("#21e7cf");
rect(84, 292, 48, 36);
rect(143, 292, 48, 36);
rect(201, 292, 48, 36);
rect(84, 347, 48, 36);
rect(143, 347, 48, 36);
rect(201, 347, 48, 36);
fill("#934bc9");
rect(132, 425, 27, 75);
rect(159, 425, 27, 75);
rect(186, 425, 27, 75);
```



```
// Building 2
fill("#bf9000");
rect(264, 187, 106, 313);
fill("#21e7cf");
circle(320, 248, 23);
square(292, 287, 13);
square(314, 287, 13);
square(337, 287, 13);
square(292, 314, 13);
square(314, 314, 13);
square(337, 314, 13);
square(292, 339, 13);
square(314, 339, 13);
square(337, 339, 13);
fill("#c55a11");
arc(320, 464, 45, 35, 180, 360);
rect(297, 464, 45, 36);
```

```
// Building 3
fill("#934bc9");
rect(370, 322, 80, 178);
fill("#21e7cf");
rect(379, 333, 63, 12);
rect(379, 354, 63, 12);
rect(379, 376, 63, 12);
fill("#4472c4");
rect(388, 465, 46, 35);
```

```
// Building 4
fill("#d44316");
rect(450, 142, 150, 358);
fill("#21e7cf");
rect(474, 171, 24, 160);
rect(521, 171, 24, 160);
rect(562, 171, 24, 160);
fill("#4472c4");
rect(495, 434, 37, 66);
rect(532, 434, 37, 66);
```

```
// Tree
noStroke();
fill("#843c0c");
rect(705, 370, 10, 50);
fill("#385723");
triangle(709, 291, 679, 370, 738, 370);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Gato

Type-in JavaScript Program



```
// Background
noStroke();
fill("#4472c4");
rect(0, 0, 800, 500);
fill("#7030a0");
rect(0, 500, 800, 1000);

// Ears and body
fill("#f4b183");
triangle(318, 99, 318, 175, 359, 121);
triangle(483, 99, 483, 184, 435, 121);
circle(397, 415, 120);

// Head and feet
fill("#f8cbad");
triangle(397, 69, 138, 410, 655, 410);
circle(332, 525, 25);
circle(468, 525, 25);

// Eyes
fill("#44546a");
ellipse(339, 215, 29, 40);
ellipse(461, 215, 29, 40);

// Nose
fill("#7f7f7f");
triangle(360, 270, 440, 270, 402, 339);
noFill();
stroke("#7f7f7f");
arc(447, 338, 90, 68, 45, 180);
arc(357, 338, 90, 68, 0, 135);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

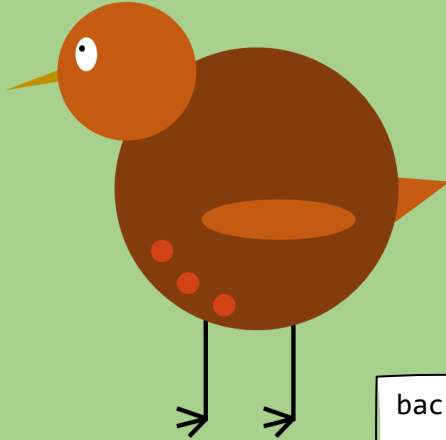
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Pássaro

Type-in JavaScript Program



```
background("#a9d18e");

// Legs
strokeWeight(4);
stroke("Black");
line(380, 407, 380, 500);
line(380, 500, 355, 493);
line(380, 500, 354, 508);
line(380, 500, 365, 518);
line(460, 412, 460, 500);
line(460, 500, 434, 492);
line(460, 500, 434, 509);
line(460, 500, 445, 517);
```

```
// Tail and body
noStroke();
fill("#c55a11");
triangle(554, 280, 603, 284, 551, 323);
fill("#843c0c");
circle(426, 291, 130);
fill("#c55a11");
ellipse(447, 318, 142, 39);
fill("#d44316");
circle(339, 348, 10);
circle(364, 377, 10);
circle(397, 398, 10);

// Head
fill("#bf9000");
triangle(196, 199, 245, 180, 246, 190);
fill("#c55a11");
circle(308, 181, 64);
fill("White");
ellipse(270, 167, 20, 31);
fill("Black");
circle(267, 162, 4);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Casa

Type-in JavaScript Program



```
// Background
noStroke();
background("#bdd7ee");
fill("#548235");
rect(0, 500, 800, 100);
```

```
// Sun
fill("#ffd966");
circle(77, 67, 46);
triangle(67, 130, 82, 129, 81, 185);
triangle(127, 109, 136, 97, 176, 136);
triangle(145, 53, 143, 37, 200, 35);
```

```
// House
fill("#ffc000");
rect(150, 397, 554, 103);
fill("#d44316");
rect(150, 252, 554, 145);
fill("#ed7d31");
triangle(134, 252, 428, 153, 720, 252);
fill("#934bc9");
triangle(506, 252, 612, 130, 720, 252);

// Porch
fill("#00b0f0");
rect(357, 397, 15, 113);
rect(481, 397, 15, 113);
rect(405, 438, 48, 62);
fill("#0070c0");
triangle(335, 397, 427, 316, 520, 397);

// Windows
fill("#c5e0b4");
rect(200, 423, 87, 50);
rect(581, 423, 87, 50);
fill("#f8cbad");
rect(218, 282, 50, 86);
rect(601, 282, 50, 86);
rect(403, 277, 47, 27);
fill("#e254d4");
circle(614, 206, 23);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

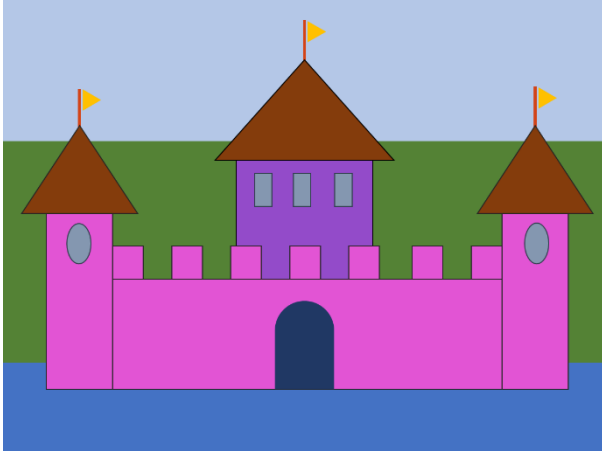
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Castelo

Type-in JavaScript Program



```
// Background
noStroke();
fill("#b4c7e7");
rect(0, 0, 800, 187);
fill("#548235");
rect(0, 187, 800, 296);
fill("#4472c4");
rect(0, 483, 800, 117);

// Castle walls
stroke("black");
fill("#e254d4");
rect(57, 284, 88, 233);
rect(145, 371, 517, 146);
rect(662, 284, 88, 233);
fill("#934bc9");
rect(310, 214, 182, 157);
fill("#e254d4");
rect(145, 328, 39, 43);
rect(224, 328, 39, 43);
rect(303, 328, 39, 43);
rect(381, 328, 39, 43);
rect(459, 328, 39, 43);
rect(543, 328, 39, 43);
rect(623, 328, 39, 43);
```

```
// Windows
fill("#8497b0");
ellipse(101, 325, 32, 55);
ellipse(709, 325, 32, 55);
rect(335, 230, 22, 43);
rect(386, 230, 22, 43);
rect(440, 230, 22, 43);

// Roof
fill("#843c0c");
triangle(25, 284, 101, 167, 179, 284);
triangle(281, 215, 401, 81, 519, 215);
triangle(630, 285, 706, 167, 783, 285);

// Flags
strokeWeight(4);
stroke("#d44316");
line(101, 119, 101, 167);
line(401, 27, 401, 81);
line(706, 115, 706, 167);
noStroke();
fill("#ffc000");
triangle(107, 146, 107, 119, 130, 132);
triangle(405, 56, 405, 27, 427, 43);
triangle(711, 142, 711, 115, 743, 131);

// Door
fill("#203864");
rect(362, 433, 78, 84);
arc(401, 433, 78, 65, 180, 360);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Urso

Type-in JavaScript Program



```
background("#b4c7e7");

// Head and ears
noStroke();
fill("#843c0c");
circle(281, 137, 56);
circle(527, 137, 56);
fill("#c55a11");
circle(406, 300, 162);

// Eyes
fill("white");
circle(346, 224, 31);
circle(485, 224, 31);
fill("black");
circle(358, 240, 11);
circle(473, 240, 11);

// Nose and mouth
fill("#843c0c");
circle(406, 395, 68);
fill("#bcb9b6");
rect(406, 369, 3, 94);
fill("black");
circle(406, 349, 22);

// Garment
fill("#548235");
triangle(257, 509, 257, 420, 403, 465);
triangle(561, 508, 561, 422, 413, 465);
fill("#21e7cf");
circle(407, 465, 8);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

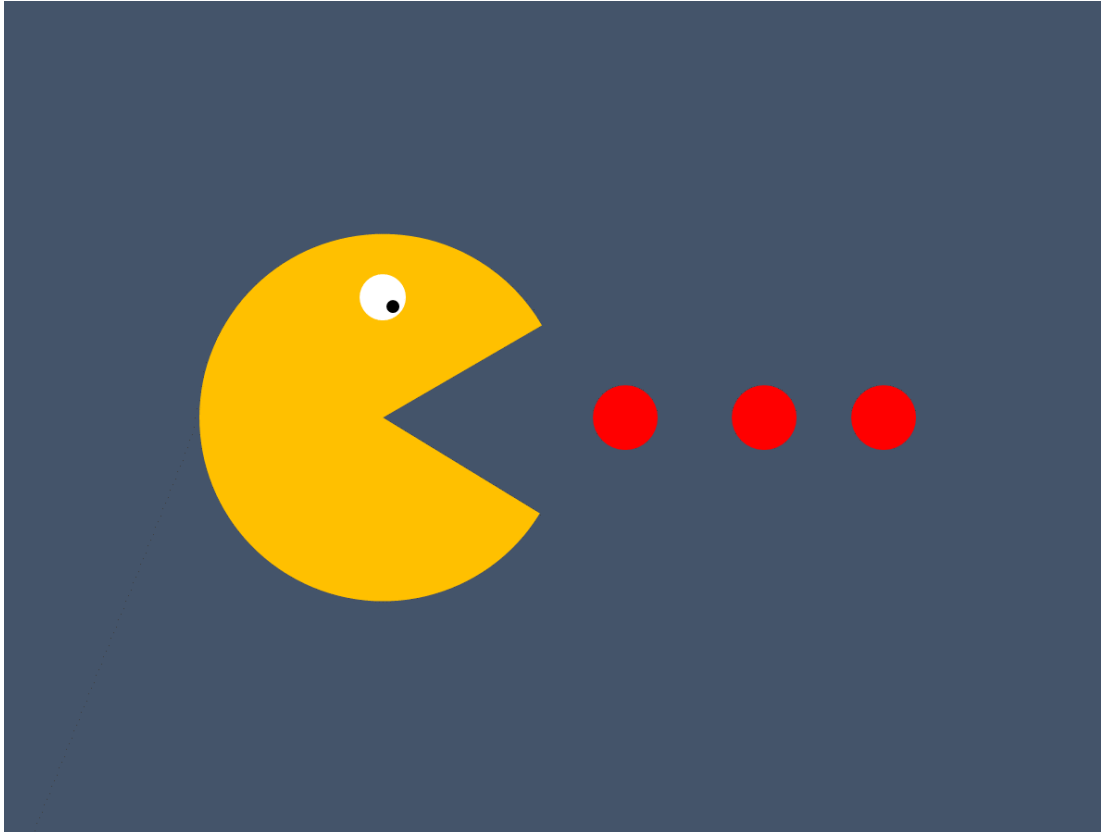
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Pac Man

Type-in JavaScript Program



```
background("#44546a");  
noStroke();  
  
// Pacman  
fill("#ffc000");  
arc(270, 300, 264, 264, 30, 330);  
  
// Eye  
fill("white");  
circle(272, 213, 16);  
fill("black");  
circle(280, 219, 5);  
  
// Food  
fill("red");  
circle(448, 300, 24);  
circle(548, 300, 24);  
circle(648, 300, 24);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

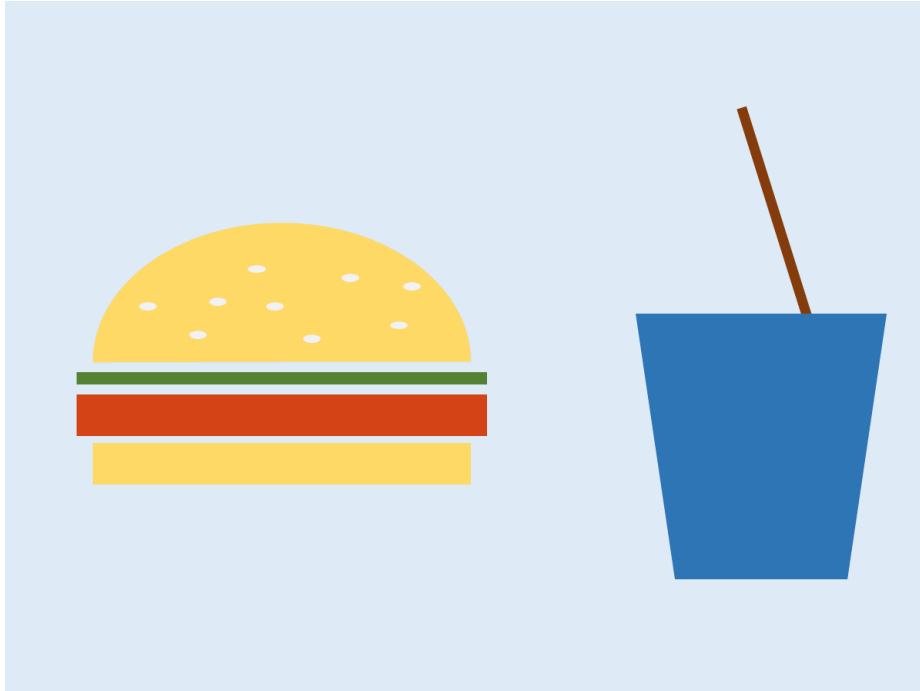
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Comida rápida

Type-in JavaScript Program



```
background("#deebf7");  
noStroke();
```

```
// Bun  
fill("#ffd966");  
arc(245, 311, 327, 238, 180, 360);  
rect(80, 380, 325, 33);
```

```
// Salad and meat  
fill("#548235");  
rect(63, 320, 355, 9);  
fill("#d44316");  
rect(63, 340, 355, 35);
```

```
// Seeds  
fill("white");  
ellipse(124, 263, 15, 7);  
ellipse(167, 288, 15, 7);  
ellipse(185, 259, 15, 7);  
ellipse(218, 231, 15, 7);  
ellipse(234, 263, 15, 7);  
ellipse(266, 291, 15, 7);  
ellipse(299, 238, 15, 7);  
ellipse(340, 279, 15, 7);  
ellipse(353, 245, 15, 7);  
  
// Drink  
strokeWeight(4);  
stroke("#843c0c");  
line(638, 93, 695, 274);  
noStroke();  
fill("#2e75b6");  
rect(571, 269, 148, 230);  
triangle(538, 269, 571, 269, 571, 499);  
triangle(719, 269, 719, 499, 752, 269);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Cão

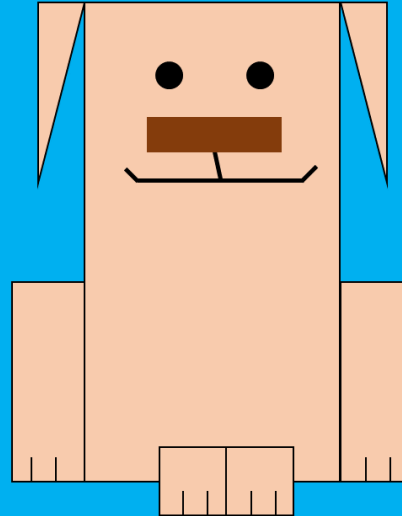
Type-in JavaScript Program

```
background("#00b0f0");

// Head, body and ears
fill("#f8cbad");
rect(315, 95, 200, 380);
triangle(279, 95, 315, 95, 279, 240);
triangle(515, 95, 551, 95, 551, 240);

// Back legs
rect(257, 315, 58, 160);
line(274, 454, 274, 475);
line(293, 454, 293, 475);
rect(515, 315, 58, 160);
line(538, 454, 538, 475);
line(557, 454, 557, 475);

// Front legs
rect(375, 445, 52, 55);
line(393, 481, 393, 499);
line(412, 481, 412, 499);
rect(375 + 52, 445, 52, 55);
line(393 + 52, 481, 393 + 52, 499);
line(412 + 52, 481, 412 + 52, 499);
```



```
// Mouth, nose, eyes
strokeWeight(3);
line(347, 226, 356, 235);
line(356, 235, 487, 235);
line(487, 235, 498, 224);
line(423, 235, 417, 211);
noStroke();
fill("#843c0c");
rect(364, 185, 106, 27);
fill("black");
circle(382, 152, 11);
circle(454, 152, 11);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

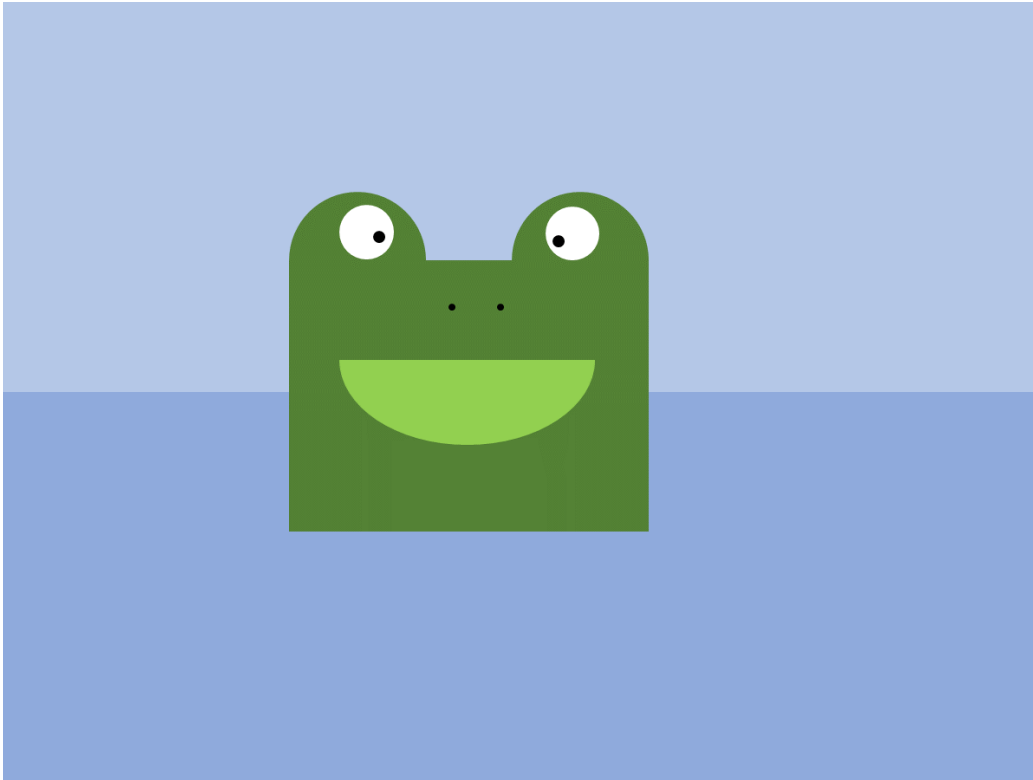
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Sapo

Type-in JavaScript Program



```
// Background
noStroke();
fill("#b4c7e7");
rect(0, 0, 800, 300);
fill("#8faadc");
rect(0, 300, 800, 600);

// Body and eyes
fill("#548235");
rect(220, 200, 276, 206);
arc(274, 200, 108, 108, 180, 360);
arc(442, 200, 108, 108, 180, 360);
fill("white");
circle(279, 176, 21);
circle(437, 176, 21);
fill("black");
circle(289, 180, 6);
circle(428, 183, 6);

// Nose and mouth
circle(345, 233, 3);
circle(382, 233, 3);
fill("#92d050");
arc(358, 274, 197, 134, 0, 180);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

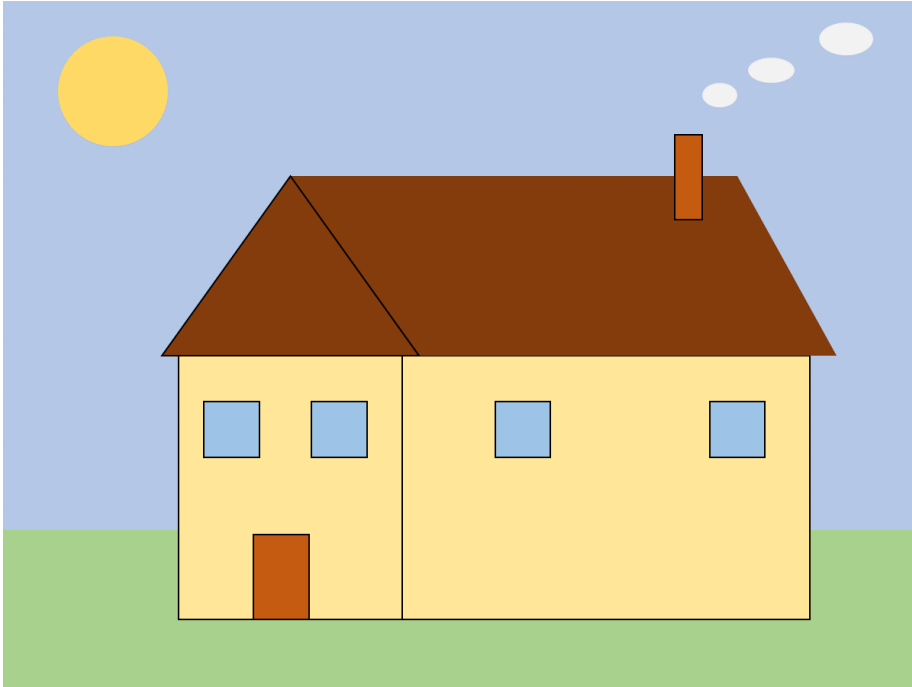
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Casa 3

Type-in JavaScript Program



```
// Background and sun
noStroke();
fill("#b4c7e7");
rect(0, 0, 800, 460);
fill("#a9d18e");
rect(0, 460, 800, 140);
fill("#ffd966");
circle(98, 82, 48);
```

```
// Walls
stroke("black");
fill("#ffe699");
rect(153, 309, 195, 232);
rect(348, 309, 355, 232);
```

```
// Door and windows
fill("#c55a11");
rect(219, 464, 51, 77);
fill("#9dc3e6");
square(175, 348, 48);
square(270, 348, 48);
square(430, 348, 48);
square(617, 348, 48);

// Roof
fill("#843c0c");
noStroke();
rect(251, 152, 389, 157);
triangle(640, 152, 640, 309, 728, 309);
stroke("black");
triangle(251, 152, 139, 309, 363, 309);

// Horn and smoke
fill("#c55a11");
rect(587, 116, 24, 75);
fill("#f2f2f2");
noStroke();
ellipse(624, 80, 30, 21);
ellipse(671, 60, 40, 21);
ellipse(736, 32, 48, 28);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

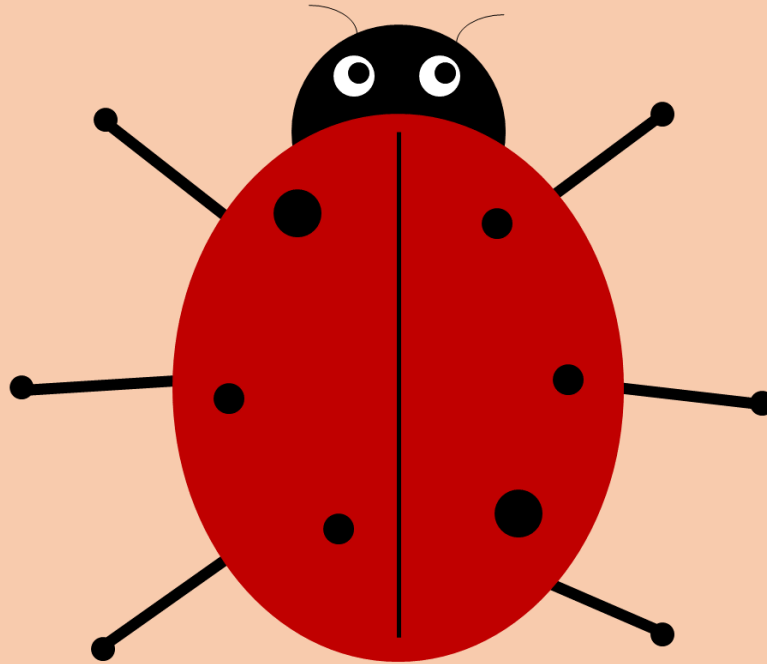
Joaninha

Type-in JavaScript Program

```
background("#f8cbad");

// Legs
strokeWeight(8);
fill("black");
line(203, 138, 299, 214);
circle(203, 138, 9);
line(139, 347, 259, 339);
circle(139, 347, 9);
line(199, 547, 302, 474);
circle(199, 547, 9);
line(634, 132, 548, 198);
circle(634, 132, 9);
line(711, 357, 601, 344);
circle(711, 357, 9);
line(634, 535, 548, 495);
circle(634, 535, 9);

// Head
noStroke();
circle(431, 146, 83);
fill("white");
circle(395, 102, 16);
circle(462, 102, 16);
fill("black");
circle(399, 100, 9);
circle(466, 100, 9);
```



```
// Antenas
stroke("black");
strokeWeight(1);
noFill();
arc(514, 77, 76, 44, 180, 270);
arc(360, 77, 76, 44, 270, 360);

// Body
fill("#c00000");
noStroke();
ellipse(431, 350, 351, 426);
strokeWeight(3);
stroke("black");
line(431, 157, 431, 537);
fill("black");
circle(351, 208, 19);
circle(297, 352, 11);
circle(383, 452, 13);
circle(505, 217, 14);
circle(562, 338, 11);
circle(522, 442, 19);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

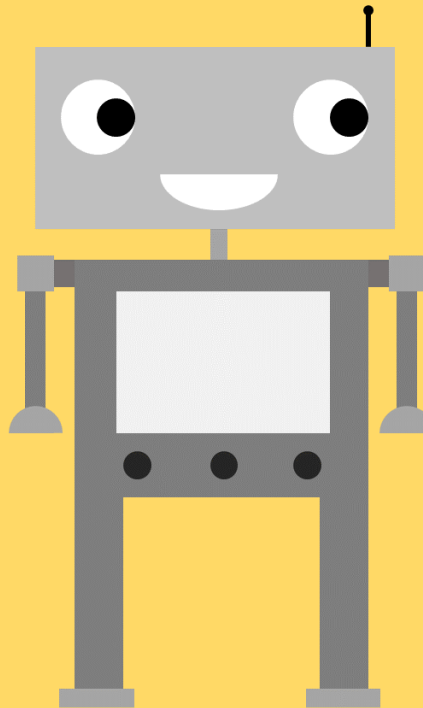
Robô 2

Type-in JavaScript Program

```
background("#ffd966");
noStroke();

// Head
fill("#bfbfbf");
rect(264, 63, 281, 141);
fill("white");
arc(404, 163, 91, 56, 0, 180);
circle(311, 117, 30);
circle(494, 117, 30);
fill("black");
circle(327, 117, 15);
circle(509, 117, 15);
rect(522, 38, 4, 25);
circle(524, 34, 8);
fill("#a5a5a5");
rect(401, 204, 13, 25);

// Body
fill("#808080");
rect(295, 229, 228, 185);
fill("#f2f2f2");
rect(327, 253, 167, 111);
fill("black");
circle(344, 389, 11);
circle(411, 389, 11);
circle(476, 389, 11);
```



```
// Legs
fill("#808080");
rect(295, 414, 37, 148);
rect(486, 414, 37, 148);
fill("#a4a4a4");
rect(283, 562, 57, 14);
rect(476, 562, 57, 14);

// Arms
fill("#767171");
rect(279, 229, 16, 20);
rect(523, 229, 16, 20);
fill("#7f7f7f");
rect(256, 253, 16, 93);
rect(546, 253, 16, 93);
fill("#a5a5a5");
rect(251, 225, 28, 28);
rect(539, 225, 28, 28);
arc(263, 364, 41, 42, 180, 360);
arc(554, 364, 41, 42, 180, 360);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

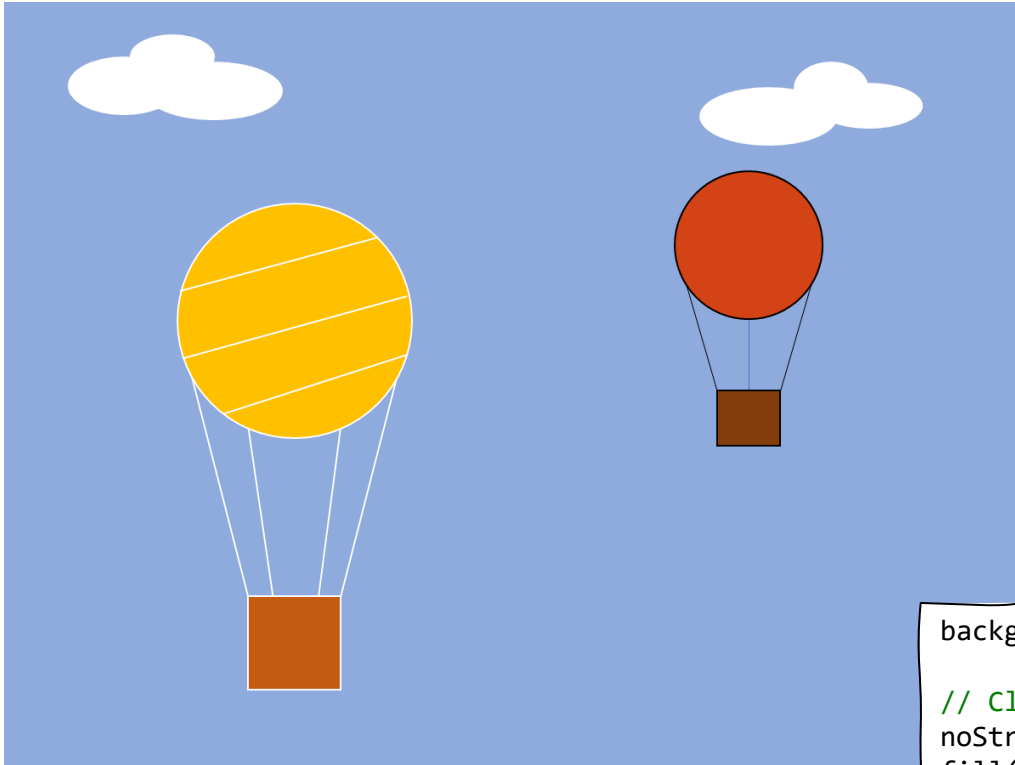
Digite o programa acima no Editor de Código

3

Pressione "Run" e divirta-se

Balões de ar quente

Type-in JavaScript Program



```
background("#8faadc");  
  
// Clouds  
noStroke();  
fill("white");  
ellipse(94, 66, 80, 48);  
ellipse(132, 42, 67, 34);  
ellipse(169, 71, 110, 45);  
ellipse(600, 89, 109, 47);  
ellipse(650, 67, 60, 46);  
ellipse(679, 80, 85, 36);
```

```
// Yellow balloon  
strokeWeight(1);  
stroke("white");  
fill("#ffc000");  
circle(227, 251, 93);  
line(140, 225, 291, 184);  
line(141, 287, 316, 229);  
line(172, 324, 315, 276);  
line(145, 296, 191, 465);  
line(192, 337, 211, 465);  
line(263, 337, 247, 465);  
line(309, 295, 263, 465);  
fill("#c55a11");  
square(191, 465, 72);  
  
// Red balloon  
stroke("#101010");  
fill("#d44316");  
circle(584, 190, 58);  
line(536, 223, 559, 303);  
line(584, 248, 584, 303);  
line(632, 221, 609, 303);  
fill("#843c0c");  
square(559, 303, 50);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

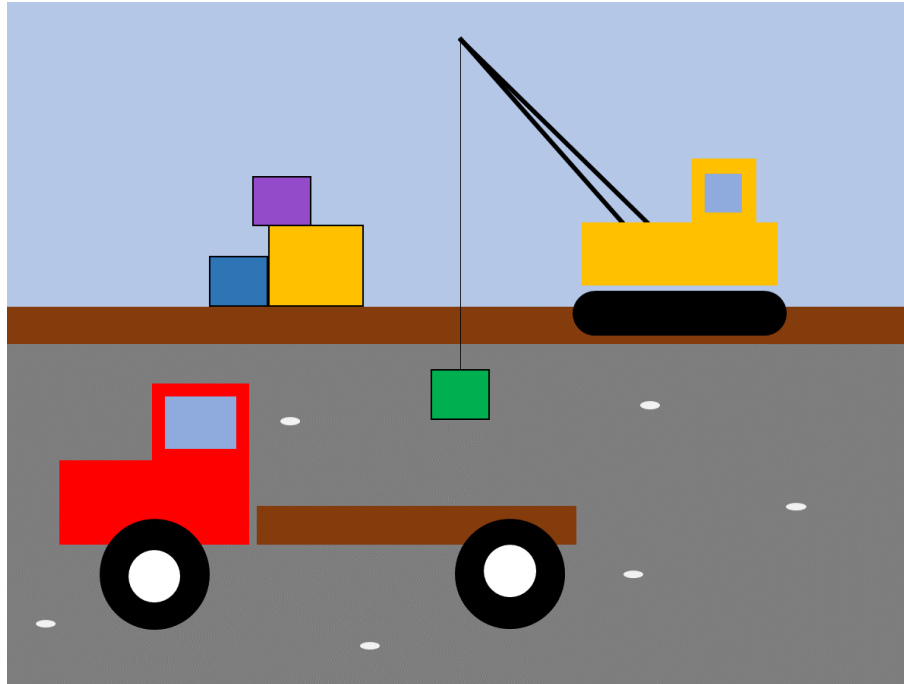
Pressione "Run" e divirta-se

Camiões

Type-in JavaScript Program

```
// Background
noStroke();
fill("#b4c7e7");
rect(0, 0, 800, 267);
fill("#843c0c");
rect(0, 267, 800, 34);
fill("#7f7f7f");
rect(0, 301, 800, 299);
fill("#f1f1f1");
ellipse(33, 545, 18, 7);
ellipse(249, 367, 18, 7);
ellipse(320, 563, 18, 7);
ellipse(565, 352, 18, 7);
ellipse(551, 501, 18, 7);
ellipse(693, 441, 18, 7);
```

```
// Flatbed truck
fill("red");
rect(46, 401, 167, 74);
rect(127, 334, 86, 67);
fill("#8faadc");
rect(139, 346, 62, 45);
fill("#843c0c");
rect(219, 440, 281, 35);
fill("black");
circle(129, 502, 49);
circle(441, 502, 49);
fill("white");
circle(129, 502, 23);
circle(441, 502, 23);
```



```
// Crane truck
stroke("black");
strokeWeight(3);
line(399, 32, 540, 194);
line(399, 32, 563, 194);
strokeWeight(1);
line(399, 32, 399, 321);
noStroke();
fill("#ffc000");
rect(505, 193, 171, 55);
rect(602, 137, 57, 56);
fill("#8faadc");
rect(615, 150, 31, 32);
fill("black");
circle(512, 272, 19);
circle(670, 272, 19);
rect(512, 253, 158, 38);
```

```
// Packages
stroke("black");
fill("#00b050");
square(375, 321, 43);
fill("#2e75b6");
square(178, 223, 43);
fill("#ffc000");
square(221, 196, 70);
fill("#934bc9");
square(210, 153, 43);
```

1

Entre no CodeGuppy.com e clique no botão "Code Now"

2

Digite o programa acima no Editor de Código

3

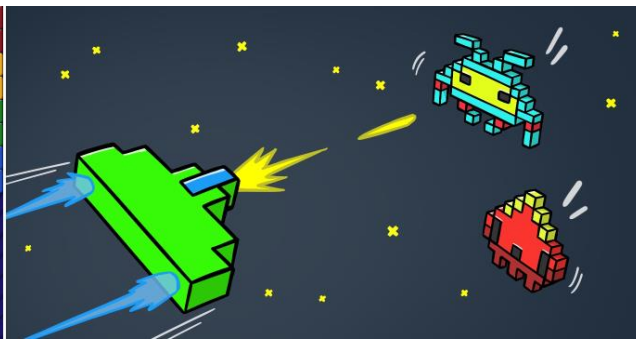
Pressione "Run" e divirta-se

Estes programas, “Desenhe com código”, chegaram até si por codeguppy.com – o site de codificação divertido para crianças.

Não se esqueça de visitar <https://codeguppy.com> para mais projetos divertidos!

Para novidades e atualizações siga [@codeguppy](https://twitter.com/codeguppy) no Twitter!

Traduzido por Sónia Abrantes (Scientix Ambassador em Portugal)



Credits

Kano computer kit examples

Khan academy

<https://www.youtube.com/watch?v=mrG33P1lwdI>

<https://www.youtube.com/watch?v=-96ajr1P8BM>

<http://howtodrawdat.com/how-to-draw-a-simple-cat-with-simple-shapes-tutorial-for-children-and-preschoolers/>

<http://www.eyedrawit.com/tutorials/>

<https://www.amazon.com/Lets-Draw-House-Shapes/dp/1404227954>

<http://kiddopedia.net/how-to-draw-a-castle-step-by-step-for-kids/>

<https://www.how-to-draw-funny-cartoons.com/cartoon-dog.html>

<https://www.youtube.com/watch?v=YZG704D-600>

<https://www.pinterest.com/pin/311874342921041781/>

<https://www.easypeasyandfun.com/how-to-draw-a-ladybug/>

<https://paintingvalley.com/easy-ladybug-drawing>

<https://design.tutsplus.com/tutorials/how-to-create-a-cute-robot-game-sprite-using-ssr-in-adobe-illustrator--vector-8442>

<https://www.youtube.com/watch?v=QWoL3WBZT7g>