

Year 6

3.What is ABS ?

sqrt of 9

abs

Make the player control the mouse sprite with the pointer. Make the cat sprite give chase to the mouse sprite. When the

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Gotcha!

cat catches the mouse it says 'Gotcha!'. A small problem to debug.

The cat stops moving immediately

after it catches the mouse but the

mouse continues to move. Why is

What is the easy solution to

instantly stop the mouse when the

on the mouse.

There's one script

set x to mouse

How this script works: This script gives the mouse the same location as the pointer. The

Note:

To make it possible to drag the mouse in the Scratch Player (large screen), click the () to open the info box. Tick 'can drag in player'.

cat says 'Gotcha!' ? problem debugged The three seconds lapse site the cast says Cootras' delays the tunning of stop all for all other spitters. When you place in covernent choose in copp it stops the mouse movement mersenily and solves the problem.

Card 15 adds extra code to make the Cat and Mouse chase even more exciting.

How this script works: Inside the forever loop (dashed line), the cat is programmed to say 'Gotcha!' and stop the game, only if touching the mouse. Otherwise (else) the cat just points towards the mouse and follows it.
The go to x: y: block that sets the cat's start position must not be inside the forever loop.

o to x: -180 y: -120

move 10 steps

if on edge, bounce

say Gridsill for 3 sacs

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0

aqSize y: -8 × eqSize

set pen color to

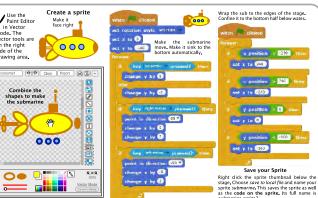
to x: 🗝 ×

turn 🖍 350

You also use numberOfSides

360 ÷ Number of Sides = Outside Angle

to set the angle of turning.



Card 14 Cat and Mouse Chase There's one script on the cat.

Card 15

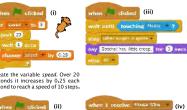
A Timed Chase

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say I WINHIII for 3 sec

There are four scripts on the cat. (i) r speed - to E



go to x: -180 y: -120



locate your sprite submarine.sprite2 on your computer. Import it into your project. Colour the backdrop for

000

the sky and sea. Set the horizon at y = 0. Bring the sea in front of the sub and make it a little bit transparent using ghost effect.



2. Programme a Vanishing Submarine

The submarine is already programmed to lift up off the sea bed when you press the UP arrow key and to move right or left, when you press the RIGHT or LEFT arrow keys. It's also programmed to sink to the

Make the submarine disappear when it's deep. Make it visible as it gets closer to the top of the water.

(i) Create a new variable and name it depth. (ii) Add the extra code below to the submarine. (iii) Find abs in the list of the square root operator.

the depth of the sub

ahost effect ranges from 0 (visible) to 100 (invisible) Above 100 is invisible.

When you click the green flag, the submarine is invisible. When you lift UP the submarine, the absolute value of its v position gets closer to zero and the submarine becomes more and more visible.

Abs stands for absolute. Abs simply means look upon all numbers positive, e.g. the absolute value of

absolute value of +4 is +4 Look upon -160 as if it was 160.



Create the variable sneed. Over 20 seconds it increases by 0.25 each second to reach a speed of 10 steps.

mouse (ii), when the mouse outlasts the 20 seconds timer. It's all over for the cat! Script (iii) doesn't run if script
(iv) runs before it.