



TURTLE BLOCKS:

MANUAL ON MORE ADVANCED BLOCKS

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I. WHAT IS TURTLE BLOCKS?

A. DESCRIPTION

TURTLE BLOCKS OR TURTLE ART IS AN ACTIVITY WITH A LOGO - INSPIRED GRAPHICAL "TURTLE" THAT DRAWS COLORFUL ART BASED ON SNAP - TOGETHER VISUAL PROGRAMMING ELEMENTS. WITH THIS PROGRAM, YOU CAN CHALLENGE YOUR CREATIVITY TO CREATE A HOLISTIC ARTWORK.

GO TO [HTTP://WIKI.SUGARLABS.ORG/GO/ACTIVITIES/TURTLEART](http://wiki.sugarlabs.org/go/activities/turtleart) FOR MORE INFORMATION

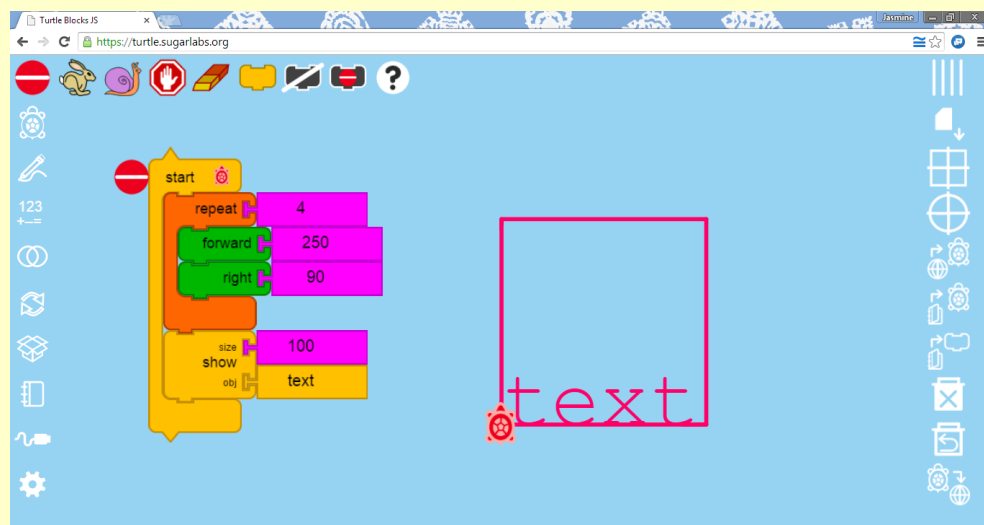
B. WHERE TO PLAY

YOU CAN ACCESS TURTLE BLOCKS AT [HTTP://TURTLE.SUGARLABS.ORG/](http://turtle.sugarlabs.org/). FOR GNU/LINUX USERS, A PYTHON VERSION IS AVAILABLE AT [HTTP://ACTIVITIES.SUGARLABS.ORG/EN - US/SUGAR/ADDON/4027](http://activities.sugarlabs.org/en-US/sugar/addon/4027).

II. ADVANCED BLOCKS

A. ADDING TEXT WITH THE SHOW BLOCK

THE APTLY NAMED "SHOW" BLOCK SHOWS THINGS. BY DEFAULT, IT SHOWS TEXT ON THE SCREEN. TO USE IT, DRAG A "SHOW" BLOCK ONTO THE CANVAS. IT WILL COME WITH A "TEXT" BLOCK ATTACHED. TYPE IN YOUR TEXT BY CLICKING ON THE "TEXT" BLOCK AND ADJUST THE SIZE BY TYPING A NUMBER INTO THE VALUE NEXT TO "SIZE" IN THE "SHOW" BLOCK.

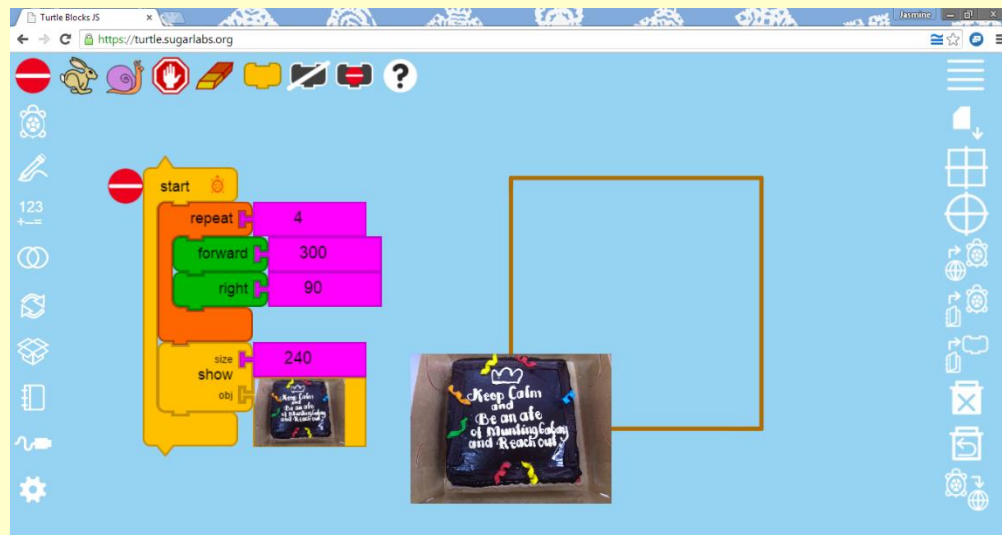


B. ADDING PICTURES WITH THE SHOW BLOCK

THE "SHOW" BLOCK IN COMBINATION WITH THE "MEDIA" BLOCK FUNCTIONS SIMILARLY WITH THE TEXT BLOCK. HOWEVER, INSTEAD OF A TEXT APPEARING, A PICTURE APPEARS. GRAB A "MEDIA" BLOCK AND ATTACH IT TO THE "SHOW" BLOCK WHERE THE "TEXT" BLOCK IS ATTACHED. THEN CLICK ON THE MEDIA BLOCK, AFTER WHICH, CHOOSE A PICTURE FROM YOUR DESKTOP. YOU CAN ADJUST THE SIZE BY ADDING THE VALUE YOU WANT NEXT TO "SIZE" IN THE "SHOW" BLOCK.

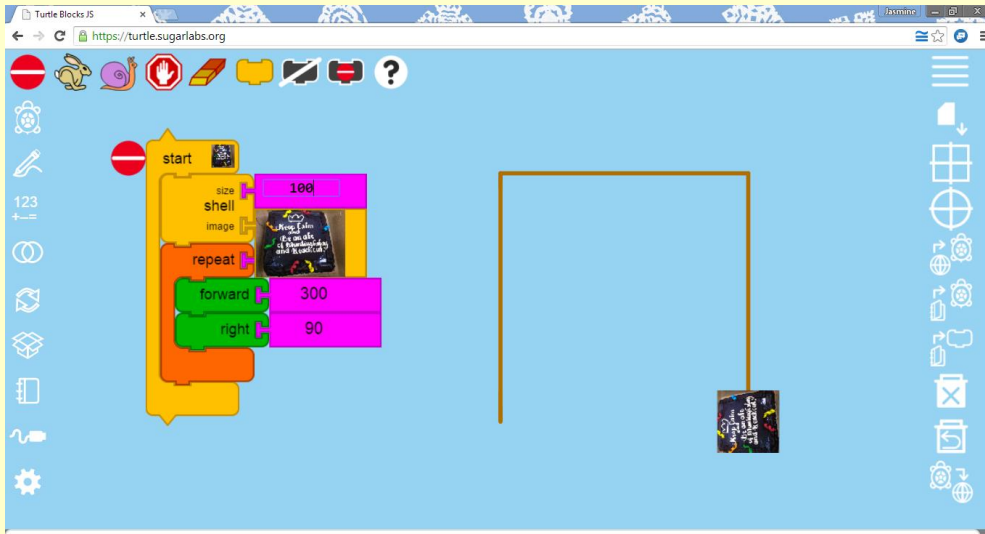
NOTE: ANOTHER WAY TO SHOW PICTURES IS TO USE THE TEXT BLOCK AND TYPE IN A URL.

(E.G., [HTTP://PEOPLE.SUGARLABS.ORG/WALTER/IMAGES/TURTLE.PNG](http://people.sugarlabs.org/walter/images/turtle.png))



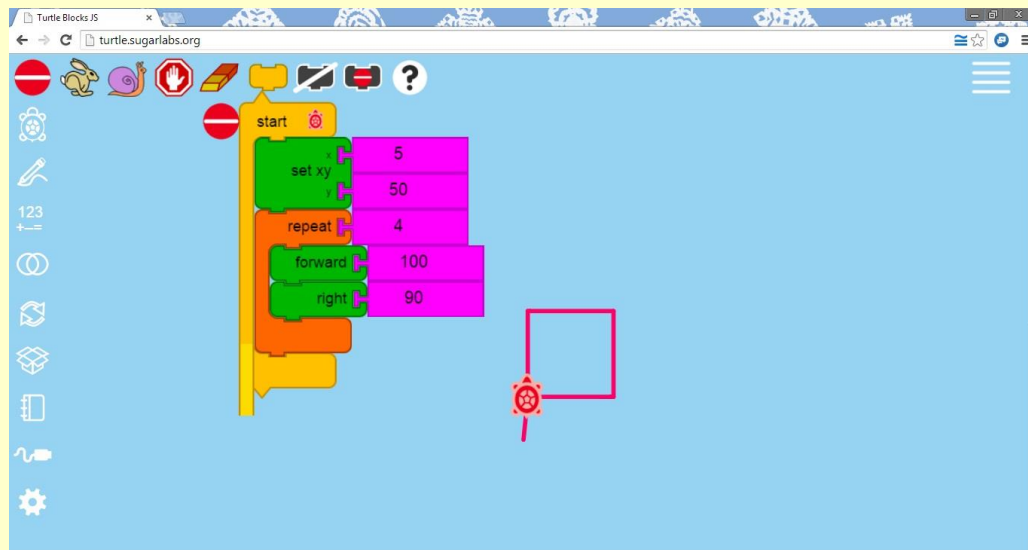
C. CHANGING THE TURTLE'S SHELL

WITH THE "SHELL" BLOCK YOU CAN CHOOSE YOUR OWN PICTURE TO REPLACE THE TURTLE. THE PICTURE WILL ACT AS YOUR TURTLE INSTEAD. ALSO, YOU CAN ADJUST THE SIZE OF YOUR NEW "TURTLE" THE SAME WAY YOU ADJUSTED IN THE "SHOW" BLOCK.



D. MOVING THE TURTLE WITH THE SET XY BLOCK

THE "SET XY" BLOCK ALLOWS YOU TO ADJUST THE LOCATION OF YOUR TURTLE. IN THE EXAMPLE BELOW, THE TURTLE MOVED FROM (0,0), THE ORIGIN, TO (5,50) BEFORE DRAWING A SQUARE.



YOU CAN MAKE THINGS EVEN MORE INTERESTING WITH THE...

E. MOUSE X AND MOUSE Y BLOCKS

IN COMBINATION WITH THE "SET XY" BLOCK, THESE BLOCKS SET YOUR TURTLE'S X AND Y VARIABLES THE POSITION OF THE TURTLE DEPENDING

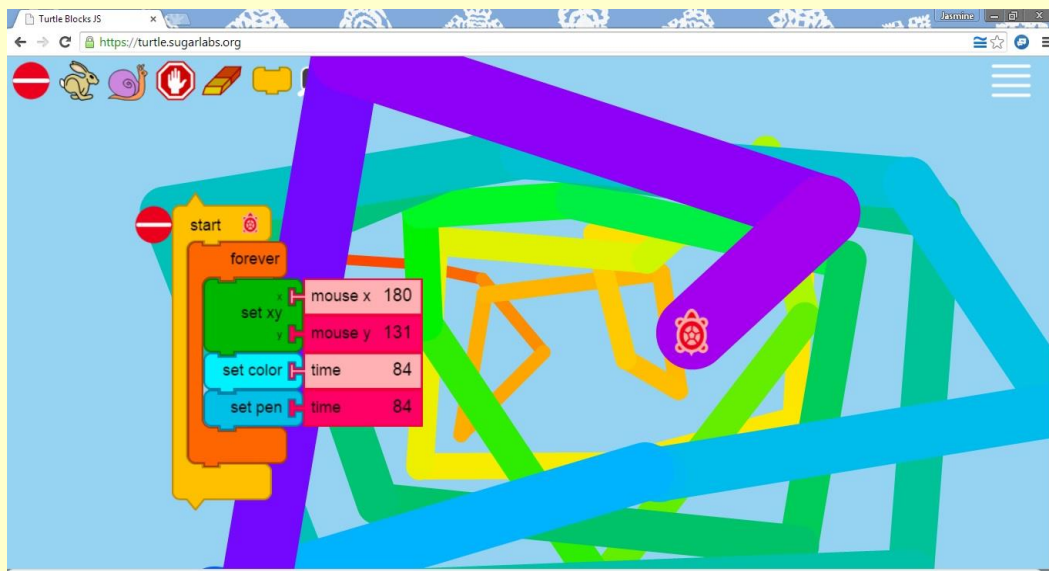
ON WHERE YOUR MOUSE IS POSITIONED. IN OTHER WORDS THE TURTLE WILL MOVE TO WHEREVER YOUR MOUSE IS HEADING.

(WHAT HAPPENS IF YOU SWITCH X AND Y?)

F. TIME BLOCK

THIS BLOCK KEEPS TRACK OF THE SECONDS SINCE THE PROGRAM STARTED TO RUN. WITH THIS, YOU CAN KEEP THE PEN COLOR AND SIZE VARYING OVER TIME.

INTEGRATED EXAMPLE FOR SECTION E AND F



G. MOUSE BUTTON BLOCK

THE "MOUSE BUTTON" BLOCK RETURNS TRUE OR FALSE WHEN THE MOUSE BUTTON IS CLICKED. YOU CAN USE THIS BLOCK WITH THE *IF*, *WHILE*, OR *UNTIL BLOCKS*. IN THE EXAMPLE BELOW, MULTIPLE "SHOW" BLOCKS WERE USED TO DRAW PICTURES AS IN A SLIDESHOW. TO PAUSE BETWEEN PICTURES, WE DO AN ACTION THAT WAITS UNTIL THE MOUSE BUTTON IS PRESSED.

MOVE OVER POWERPOINT. TURTLE BLOCKS IS COMING TO TOWN!



Introductory information and pictures are retrieved from sugarlabs.org

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