Black Shell Challenge Cards

Teachers Notes:

There is only a single challenge card for students who have achieved their Black Shell Turtle Programmer award. It is Card 0 and it is for teachers!

Preparation:
1. When the pupils login to their computers they should head to the ***Turtle Playground - BLACK***. They should be directed to: bebras.uk -> Turtle -> click on the Black turtle.
2. Each pupil will need their own Black Shell Record Card (which should not be laminated as they have to be written on). When a pupil completes a project they can write a short summary in this record card.
3. In the first lesson, the teacher should show the students how to access ***Turtle Playground - Black***. Note ***Card 0*** is for the teacher to use with the class. Pupils do not have any challenge cards at this level.

For pupils who have achieved their Black Shell Turtle Programmer award.

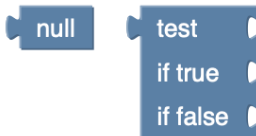Turtle Playground - Black

Black Shell Challenge Cards

Pupils who have achieved their Black Shell Turtle Programmer award can now produce their own projects using the Turtle Playground - Black
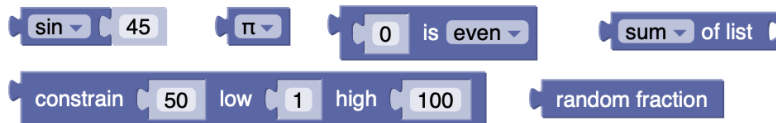
Code Blocks added in **Turtle Playground - Black**:
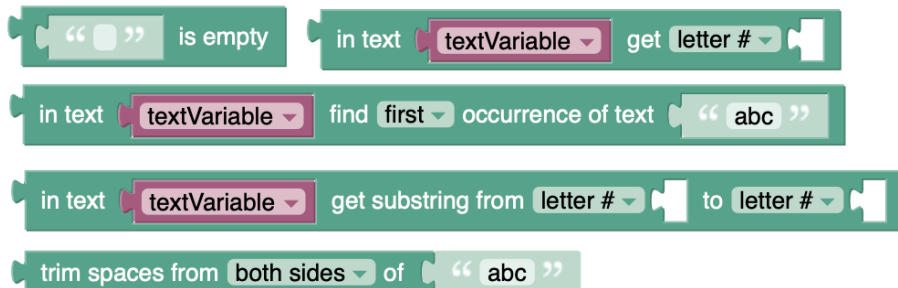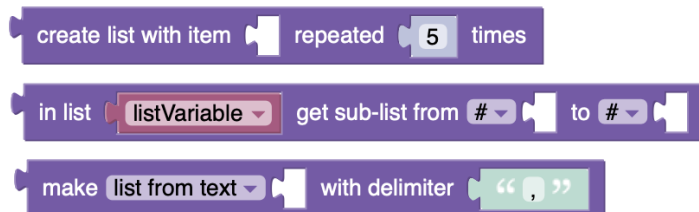
In the **Colour** folder:

blend colour 1
colour 2
ratio 0.5

In the **Logic** folder:

null

test
if true
if false

In the **Maths** folder:

sin 45
π
0 is even
sum of list
constrain 50 low 1 high 100
random fraction

In the **Text** folder:

" " is empty
in text textVariable get letter #
in text textVariable find first occurrence of text " abc "
in text textVariable get substring from letter # to letter #
trim spaces from both sides of " abc "

In the **Lists** folder:

create list with item repeated 5 times
in list listVariable get sub-list from # to #
make list from text with delimiter " , "

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Turtle Playground - Black

Black Shell Challenge Cards

1. Click on the link your pupils will use to access *Turtle Playground - Black*

Turtle Playground - Black

Download image

Download workspace Upload workspace

Turtle
Colour
Loops
Logic
Maths
Text
Lists

Variables
Functions

▶ Run   Next step   ↻ Reset

This playground is for experienced Blockly Turtle programmers and contains all of the standard Blockly code blocks.
Turtle Maze Puzzle: Follow the Wall

2. Provide each pupil with a *Black Shell Record Card.*

3. Explain that:
- There are no cards or videos at this point
- There are new code blocks to find and try out
- Every time the students finish a project they should save their code and write a brief description of what they have done in their Record Card.

For pupils who have achieved their Black Shell Turtle Programmer award.

Turtle Playground - Black