
















Coding with Scratch: Learning Loops: Repetition Loops (Drawing Regular Polygons)

National Curriculum Use sequence, selection and repetition in programs; work with variables and various forms of input and output.		Lesson Duration This lesson will last approximately 60 minutes.	
Aim To use a loop to repeat a sequence of instructions for a specific task.			
Success Criteria I can identify where in an algorithm repetition will be useful. I can customise a repeat block for a specific purpose. I can write algorithms to draw regular polygons. I can use loops for repetition in order to improve code.		Key Vocabulary Loop, regular polygon, repeat, repetition, customise, nested.	
Resources Lesson Pack PC devices, such as laptops, Chromebooks and/or tablets Scratch Online version accessed via _____		Preparation What Am I? Activity Sheet - one per pair or group. Differentiated Drawing Regular Polygons Activity Sheet - one per child as required. Please access Lesson 3 (Example Pattern) within the _	

Prior Learning: Children will already be familiar with the idea of loops in coding and should be able to explain the advantages of using them. In the previous lesson, children looked in more detail at using a count-controlled loop to repeat actions a specific number of times. They should also be able to customise repeat blocks in order to make their code more efficient.

Learning Sequence

	Remember It: Use the Lesson Presentation to remind children what an algorithm is. Ask children to think about examples of algorithms in everyday life. Use the on-screen examples to help children recognise common types of algorithms used in everyday life. Compare algorithms with and without loops and remind children about how loops provide a quicker and easier way to write sets of repeated instructions.	
	What Is a Regular Polygon?: Ask children to think about what a regular polygon is before looking at the examples in the Lesson Presentation . Ensure that children understand the definition of a regular polygon and that they can identify regular 2D polygons. In pairs or small groups, children can complete the What Am I? Activity Sheet to ensure that they can identify a range of regular polygons and describe the number of sides and angles.	
 	Drawing a Square in Scratch: The Lesson Presentation guides children through writing an algorithm in Scratch to draw a square. The steps to draw a square can be introduced using just the lesson slides or alternatively you may prefer your children to log into Scratch and try out the code as it is presented. Ensure that children know how to find the pen tool from the Add Extension icon, as they will need to draw their shapes in order to see them. It is important that children see the code written with a number of repeated steps and then in shorter form using a repeat loop. Draw attention to the white area in the repeat block and how the number in this needs to change to tell the computer how many times to repeat the instructions. Why has the number in the repeat block been changed to a four? The number inputted into the white area will match the number of sides and angles in the shape. For a square the block is customised with a four because the square has four sides and four angles. When using the pen in the down position, children will need to know how to clear the screen and reset the sprite to the centre of the Stage. Use the Lesson Presentation to discuss the steps in this algorithm. Finally, take the opportunity to ensure that children know how to name and save their work.	

	<p>Drawing Regular Polygons: Use the Lesson Presentation to introduce children to their coding task. The task challenges them to write algorithms in Scratch to draw a range of regular polygons. Children can work individually or in pairs using the appropriate differentiated Drawing Regular Polygons Activity Sheet. Encourage children to test their algorithms and debug the instructions if they find an error.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="215 246 534 324">  <p>Children draw simple 2D shapes using the algorithms provided.</p> </div> <div data-bbox="614 246 965 347">  <p>Children draw simple 2D shapes, organising the suggested blocks into algorithms.</p> </div> <div data-bbox="997 246 1380 414">  <p>Children draw a wider range of 2D shapes, calculating the angles in each shape and customising the blocks as required.</p> </div> </div>	
	<p>Perfect Patterns: Use the Lesson Presentation to show children how their learning about loops and regular polygons can be utilised to create complex patterns. Look in more depth at the code provided on the slide for a spiral pattern based on an octagon. Ensure that children understand that two loops are used within the algorithm and introduce the term nested to show how one loop sits inside another. Can the children predict what this algorithm might create? Encourage children to reflect on the importance of using loops within code.</p> <p>Why is it better to use loops to carry out long or complex tasks?</p> <p>After exploring the algorithm, use the _____ Scratch file to see the code in action. Click on the Green flag to run.</p> <p>You can run the code and show children the pattern that is created. Children may like to explore creating their own patterns in Scratch based on other regular polygons. They can explore changing the pen colour to create shapes in a different colour each time. Encourage children to try out their ideas and debug their code to remove any errors.</p>	

Exploreit

Drawit: Children can work independently to practise using loops to create firework night pictures in Scratch. Provide them with this _____ for support.

Animateit: Provide children with a copy of the _____. They can use the worksheet for support as they explore using loops to create and animate the letters of their name in Scratch.

Assessment Notes:

Disclaimers

External Links:

This resource contains links to external websites and/or external apps. Please be aware that the inclusion of any link in this resource should not be taken as an endorsement of any kind by Twinkl of the linked website and/or app, or any association with its operators. You should also be aware that we have no control over the availability of the linked pages and/or apps. If the link is not working, please let us know by contacting TwinklCares and we will try to fix it although we can assume no responsibility if this is the case. We are not responsible for the content of external sites and/or external apps.

Scratch Safety:

Showing or creating the flashing sprite effect could be problematic for children with conditions such as epilepsy. Discretion is advised.



Computing

Coding with Scratch: Learning Loops

Coding
with Scratch

Repetition Loops

(Drawing Regular Polygons)



Question Marks

**This is Quizby.
He is a question mark who
loves to ask questions.**



When you see a question mark icon like this in the **Lesson Presentation**, it can be clicked on to reveal one of Quizby's questions.



The questions that appear next to these question marks will help you to think about the key learning throughout the lesson.

Aim

To use a loop to repeat a sequence of instructions for a specific task.

Success Criteria

I can identify where in an algorithm repetition will be useful.

I can customise a repeat block for a specific purpose.

I can write algorithms to draw regular polygons.

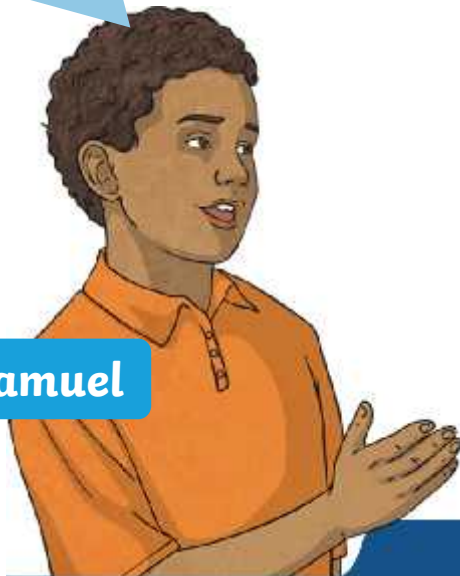
I can use loops for repetition in order to improve code.

Remember It

Fatima, Lucy and Samuel are talking about algorithms. They all have different ideas about what an algorithm is. Have a look at what each child says and then decide who you think might be right.

I think an algorithm is a type of computer language.

Samuel



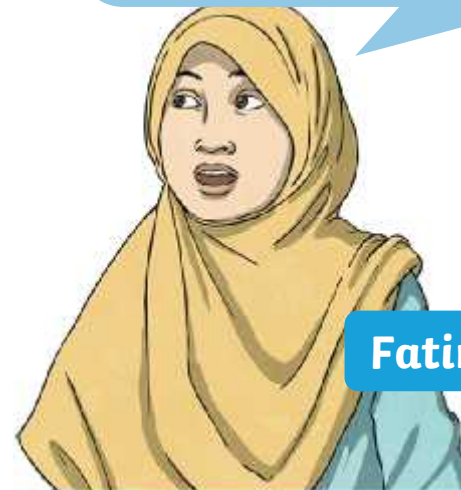
I think an algorithm is a type of music.

Lucy



I think an algorithm is a set of instructions for solving a problem.

Fatima



Remember It

Fatima is correct. An algorithm is a set of instructions or rules for solving a problem or completing a task.

A recipe is an example of an algorithm. It is a set of steps to produce something nice to eat.

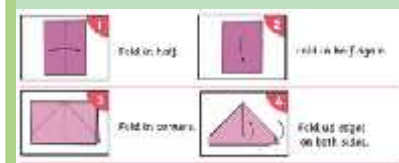


Directions to travel from one place to another is an algorithm. The instructions need to be in the correct order.

Travel 100 metres along Twinkl Road.
Turn right onto Twinkl Lane.
Go straight over the mini-roundabout.
Arrive at your destination.



Have you ever tried origami? The set of instructions to fold the paper in different ways is also an algorithm.



Remember It

Talk About It:

What do you notice about this algorithm?

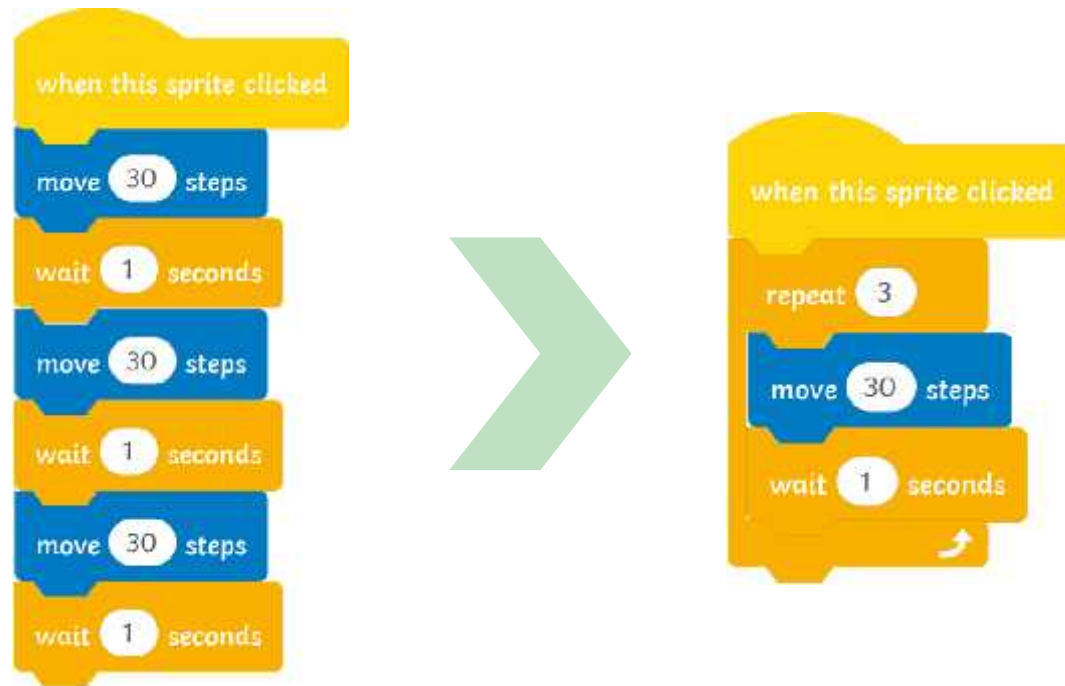
Talk to your partner about it.



Did you notice that the instructions are repeated three times?
Is there a better way to write this code?

Remember It

A loop can be used to repeat a set of instructions over and over again. It is a quicker and easier way to write code. Click on the algorithm below to see how it changes when a loop is used instead.

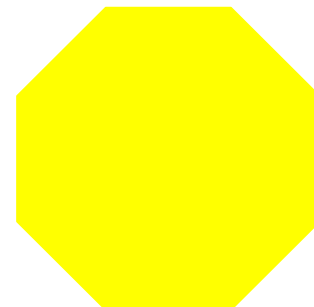
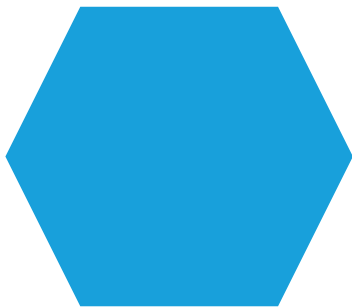


What Is a Regular Polygon?

In this lesson, you will explore repeat loops further through drawing some regular polygons in Scratch.

Talk About It:

Look at these examples of regular polygons. What do you notice about them? How are they the same and how are they different? Can you explain what you think a regular polygon is?

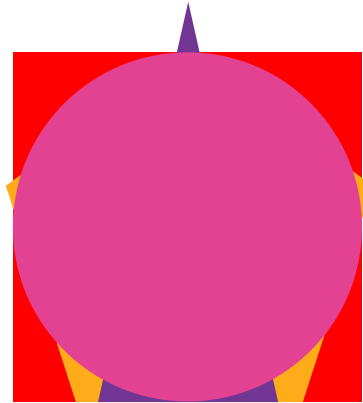


What Is a Regular Polygon?

A polygon is a 2D closed shape with straight sides.

A regular polygon is a polygon in which all the sides are equal in length and all the angles are equal in size.

Is this a regular polygon?



What Is a Regular Polygon?

How many regular polygons can you name?

Use the **What Am I? Activity Sheet** to identify as many of the regular polygons as you can. Count the number of sides and the number of angles that each regular polygon has.

What Am I?

To use a loop to repeat a sequence of instructions for a specific task.

Can you identify these regular polygons? Write the correct name inside each shape. Use the word bank to help you. How many sides and how many angles does each regular polygon have?



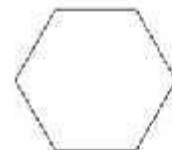
Number of sides
Number of angles



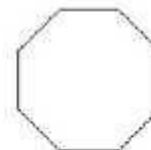
Number of sides
Number of angles



Number of sides
Number of angles



Number of sides
Number of angles



Number of sides
Number of angles

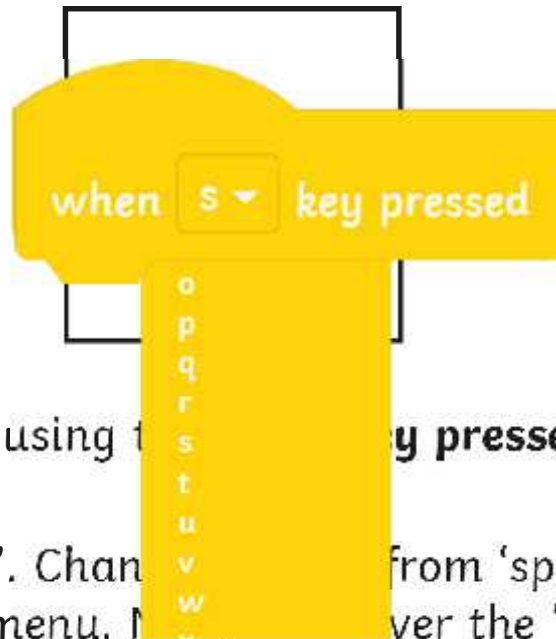


Number of sides
Number of angles

hexagon decagon triangle octagon pentagon square

Drawing a Square in Scratch

Now, let's try drawing some regular polygons in Scratch. We will start with a square.

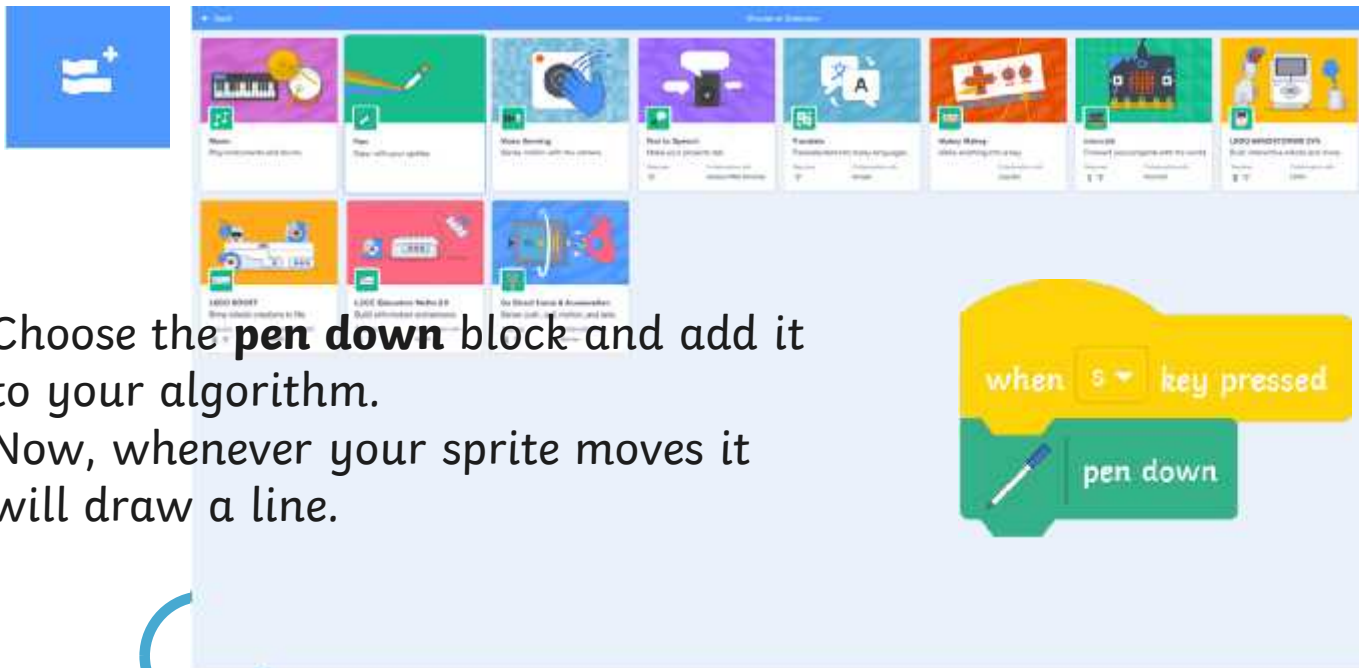


Let's start the algorithm using the **when key pressed** block.

Square begins with an 's'. Change from 'space' to the letter 's' using the drop down menu. Now, whenever the 's' key is clicked the computer will know to draw a square.

Drawing a Square in Scratch

To find the **Pen** extension you will need to click **pen down** **Add** within **Extensions** from the bottom left-hand corner of the instructions. Click of the **Pen** extension and a tab of **pen down** blocks will appear in the **Block Palette**.

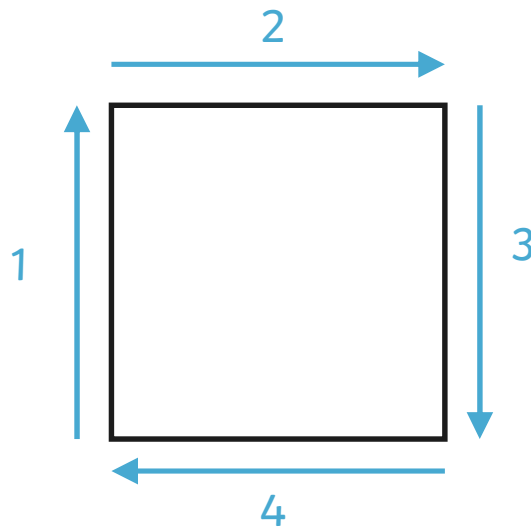


Choose the **pen down** block and add it to your algorithm. Now, whenever your sprite moves it will draw a line.

Drawing a Square in Scratch



Look carefully at the square. It has 4 sides and 4 angles.



Here is the algorithm to draw the square in Scratch. Can you spot the code for each side and each angle in the square? How many times are they repeated?

```
when space key pressed
  pen down
  move 100 steps
  turn 90 degrees
  move 100 steps
  turn 90 degrees
  move 100 steps
  turn 90 degrees
  move 100 steps
  turn 90 degrees
```

Drawing a Square in Scratch



There are lots of blocks used in this algorithm.
This makes the code very long.

Click on the algorithm each time to see how the code can be improved
by using a loop.


```
when green flag clicked
  pen down
  move 100 steps
  turn 90 degrees
  move 100 steps
  turn 90 degrees
  move 100 steps
  turn 90 degrees
  move 100 steps
  turn 90 degrees
```



```
when green flag clicked
  pen down
  repeat 4
    [ ]
```



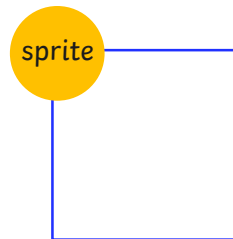
```
when green flag clicked
  pen down
  repeat 4
    move 100 steps
    turn 90 degrees
```

X Why has the number in the repeat block been changed to a 4? 

Drawing a Square in Scratch



The square should look like this.



Look at this algorithm. It will be important in your work today. What do you think this algorithm will instruct the computer to do?

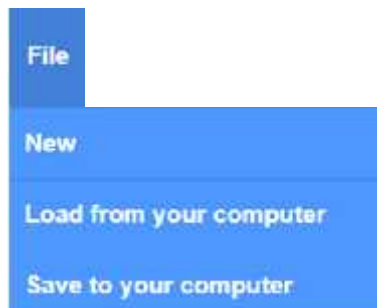
```
when space key pressed
  pen up
  erase all
  go to x: 0 y: 0
  point in direction 90
```

This algorithm can be used to erase all the pen marks and reset **Sprite** back to the centre of the **Stage** ready to draw again.

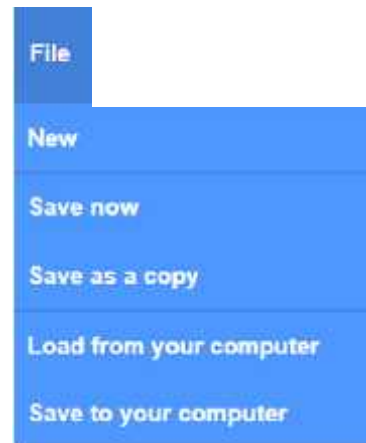
Drawing a Square in Scratch



Don't forget to give your code a suitable file name and save it if you want to keep it. What would be a good name for the algorithm to draw a square?



If you do not have an account, you can choose to **Save to your computer**. This will download a copy to your computer.



If you have an account, you can choose **Save now** and a copy will be saved to your Scratch account.

Drawing Regular Polygons



Now you know how to use a repetitive loop to move onto some other regular polygon.

What other shapes could you draw? Can you draw a regular polygon all the sides are the same length and the same size?

Drawing Regular Polygons Activity Sheet

Write algorithms for each shape in Scratch. Remember to test your algorithms and debug them if you find any errors.

Drawing Regular Polygons

To use a loop to repeat a sequence of instructions for a specific task.

Create the following algorithms in Scratch to draw regular polygons. Start each algorithm with the **when key pressed** block, changing the drop-down menu to be the first letter of the shape name. Remember to save your work.

Before you write the algorithms in Scratch, can you predict what 2D shapes each one will make?

Top Tip:

Before you begin each algorithm, remember to clear your screen. Use this code.



I think this algorithm will draw a



I think this algorithm will draw a



I think this algorithm will draw a



Challenge: An octagon has 8 sides. Each angle in an octagon is 45° . Use what you have learnt from the algorithms above to help you to write a new algorithm to draw an octagon.

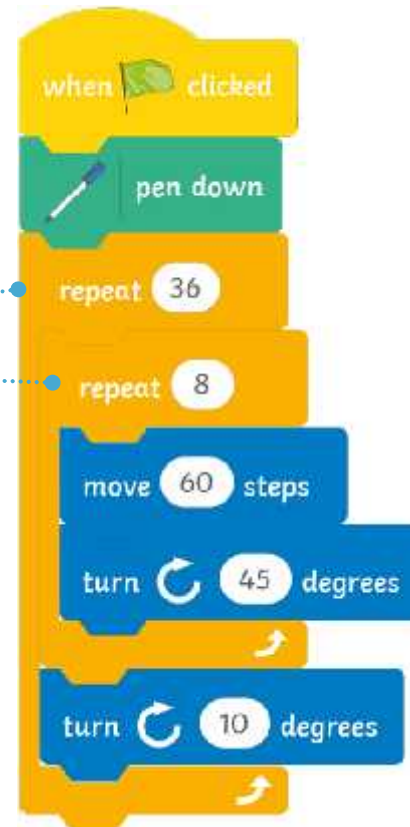
Top Tip: Drawing sides of 100 steps might make the octagon disappear off the page. Try using a smaller number of steps for each side.

Perfect Patterns

Now you are such a whizz with loops, you can create some pretty amazing patterns using regular polygons.

Look carefully at this algorithm. Can you see that there are two loops in this algorithm? One loop is **nested** inside another one.

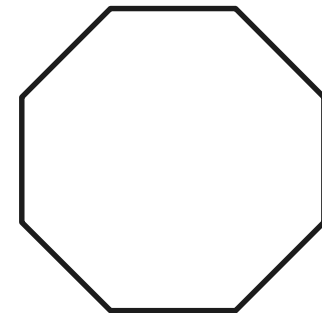
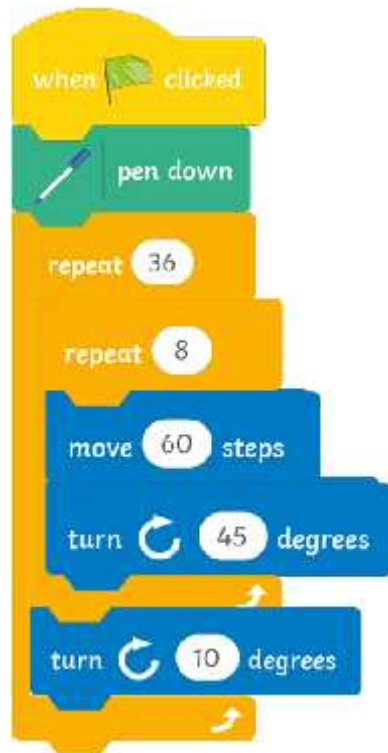
This loop wraps around for the instructions. It tells the computer to draw the shape by the number of instructions the computer to do this?



Perfect Patterns

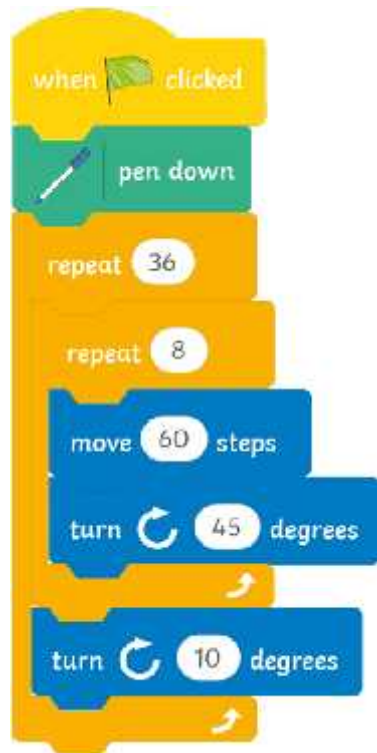
Did you work it out?

The nested loop is instructing the computer to draw an octagon by repeating the same steps eight times.



Perfect Patterns

The second loop is instructing the computer to repeat the shape and make a turn. The white area has been changed to 36 so the computer will carry out these instructions 36 times.



This white area allows us to customise the repeat block. We can edit the number to change how many times something is repeated.

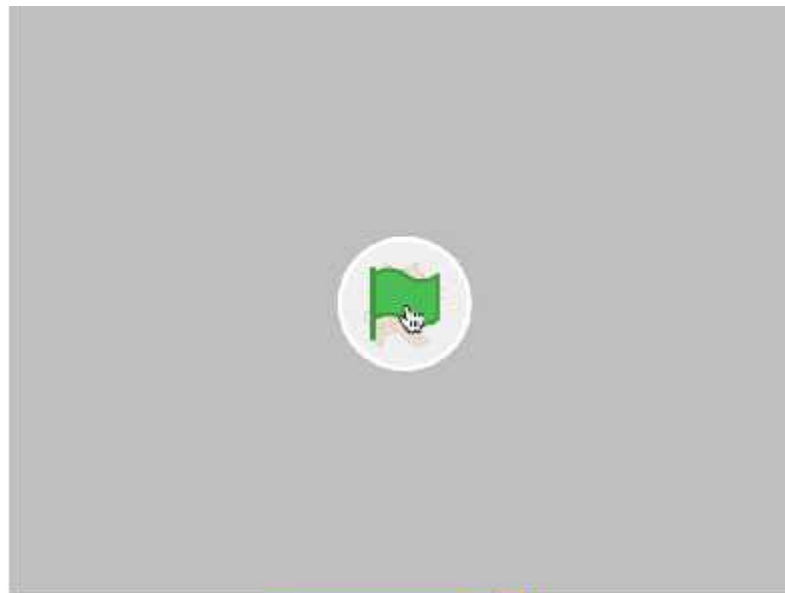


Why is it better to use loops to carry out long or complex tasks?



Perfect Patterns

When you are ready to see what the pattern looks like, click on the algorithm. What a perfect pattern!



Why don't you have a go at using loops with different shapes to create some patterns of your own? Can you think of a way to change the pen colour to create a rainbow effect?

Don't forget to debug the algorithms if you spot any errors.

Aim

To use a loop to repeat a sequence of instructions for a specific task.

Success Criteria

- I can identify where in an algorithm repetition will be useful.
- I can customise a repeat block for a specific purpose.
- I can write algorithms to draw regular polygons.
- I can use loops for repetition in order to improve code.

**Coding
with Scratch**



Drawing Regular Polygons

To use a loop to repeat a sequence of instructions for a specific task.

Create the following algorithms in Scratch to draw regular polygons. Start each algorithm with the **when key pressed** block, changing the drop-down menu to be the first letter of the shape name. Remember to save your work.

Before you write the algorithms in Scratch, can you predict what 2D shape each one will make?

Top Tip:

Before you begin each algorithm, remember to clear your screen. Use this code.

```
when space key pressed
pen up
erase all
go to x: 0 y: 0
point in direction 90
```

I think this algorithm will draw a

```
when t key pressed
pen down
repeat 3
move 100 steps
turn 120 degrees
```

I think this algorithm will draw a

```
when p key pressed
pen down
repeat 4
move 100 steps
turn 90 degrees
```

I think this algorithm will draw a

```
when h key pressed
pen down
repeat 6
move 100 steps
turn 60 degrees
```

Challenge: An octagon has 8 sides. Each angle in an octagon is 45° . Use what you have learnt from the algorithms above to help you to write a new algorithm to draw an octagon.

Top Tip: Drawing sides of 100 steps might make the octagon disappear off the page. Try using a smaller number of steps for each side.

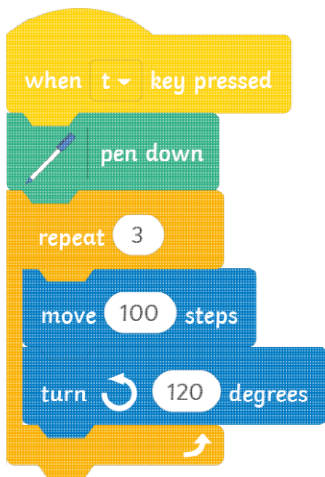
Drawing Regular Polygons Answers

To use a loop to repeat a sequence of instructions for a specific task.

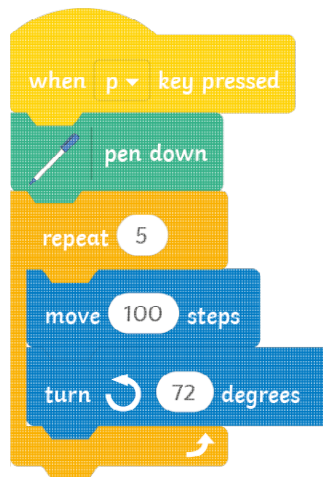


These are possible answers but children's code may vary. The angle and number of repeats must be as shown.

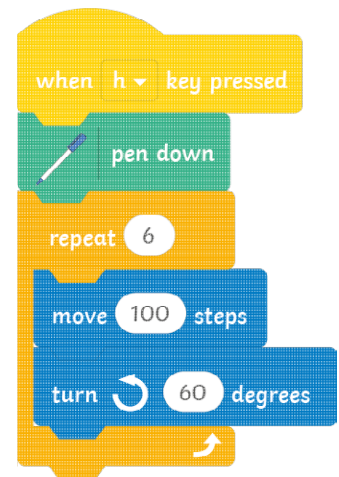
I think this algorithm will draw a **triangle**



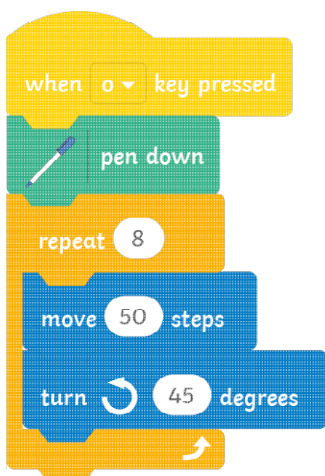
I think this algorithm will draw a **pentagon**



I think this algorithm will draw a **hexagon**



I think this algorithm will draw a **octagon**



Drawing Regular Polygons

To use a loop to repeat a sequence of instructions for a specific task.

Top Tips:

Before you begin each algorithm, remember to clear your screen. Use this code.

Remember to save your work.

```
when space key pressed
  pen up
  erase all
  go to x: 0 y: 0
  point in direction 90
```

1. Using the blocks below, write an algorithm to draw a triangle.

```
when t key pressed
  pen down
  repeat 3
    move 100 steps
    turn 120 degrees
```

2. Using the blocks below, write an algorithm to draw a pentagon.

```
when p key pressed
  pen down
  repeat 5
    move 100 steps
    turn 72 degrees
```

3. Using the blocks below, write an algorithm to draw a hexagon with 6 sides. How many times will the instructions need to be repeated?

```
when h key pressed
  pen down
  repeat 
    move 100 steps
    turn 60 degrees
```

Challenge: Can you write an algorithm to draw an octagon. The angles in an octagon are 45° .

Debug: What will you need to change if the shape is too large for the Stage?

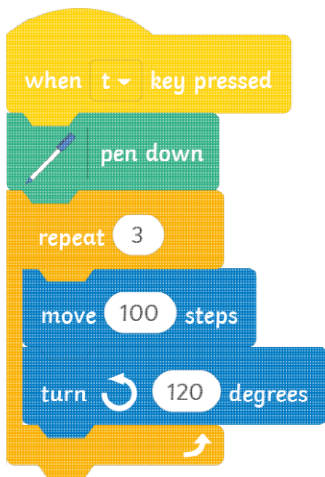
Drawing Regular Polygons Answers

To use a loop to repeat a sequence of instructions for a specific task.

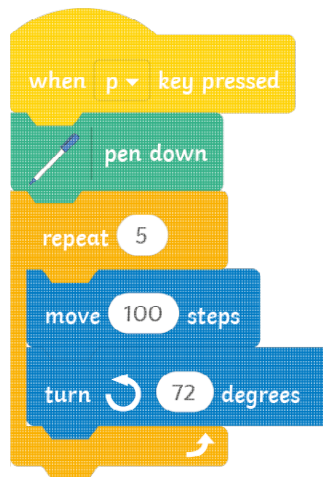


These are possible answers but children's code may vary. The angle and number of repeats must be as shown.

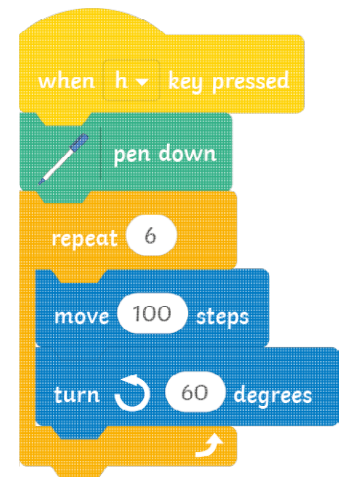
1. Regular triangle



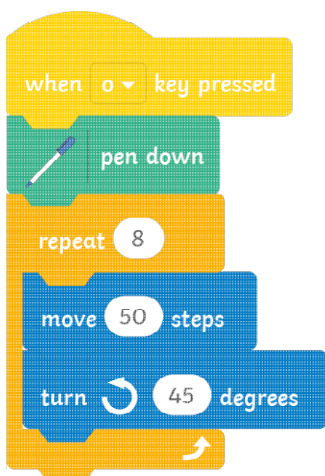
2. Regular pentagon



3. Regular hexagon



4. Challenge: Regular octagon



Drawing Regular Polygons

To use a loop to repeat a sequence of instructions for a specific task.




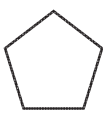
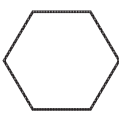
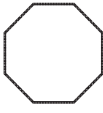

Top Tips:

Before you begin each algorithm, remember to clear your screen. Use this code. Remember to save your work.

```

when space key pressed
  pen up
  erase all
  go to x: 0 y: 0
  point in direction 90
  
```

Write algorithms to draw the following regular polygons. Start each algorithm with the **when key pressed** block and use the letter that starts the shape name.

Shape	Number of sides	Angle of turn
triangle 	3	$360^\circ \div 3 = 120^\circ$
pentagon 	5	
hexagon 	6	
octagon 	8	
decagon 	10	

You can work out the angle you need to turn in each shape by dividing 360 by the number of sides.



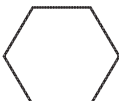
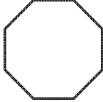

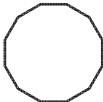
Challenge: Find out how many sides a dodecagon has. Can you write an algorithm to draw this shape?

Top Tip: As you have already used the letter d for decagon, you will have to choose another letter for dodecagon.

Drawing Regular Polygons Answers

To use a loop to repeat a sequence of instructions for a specific task.



Shape	Number of sides	Angle of turn
triangle 	3	$360^\circ \div 3 = 120^\circ$
pentagon 	5	$360^\circ \div 5 = 72^\circ$
hexagon 	6	$360^\circ \div 6 = 60^\circ$
octagon 	8	$360^\circ \div 8 = 45^\circ$
decagon 	10	$360^\circ \div 10 = 36^\circ$
dodecagon 	12	$360^\circ \div 12 = 30^\circ$

```

when t key pressed
  pen down
  repeat 3
    move 100 steps
    turn 120 degrees
  
```

```

when p key pressed
  pen down
  repeat 5
    move 100 steps
    turn 72 degrees
  
```

```

when h key pressed
  pen down
  repeat 6
    move 100 steps
    turn 60 degrees
  
```

```

when o key pressed
  pen down
  repeat 8
    move 50 steps
    turn 45 degrees
  
```

```

when d key pressed
  pen down
  repeat 10
    move 50 steps
    turn 36 degrees
  
```

```

when f key pressed
  pen down
  repeat 12
    move 50 steps
    turn 30 degrees
  
```


Drawing Regular Polygons

To use a loop to repeat a sequence of instructions for a specific task.

Create the following algorithms in Scratch to draw regular polygons. Start each algorithm with the **when key pressed** block, changing the drop-down menu to be the first letter of the shape name. Remember to save your work.

Before you write the algorithms in Scratch, can you predict what 2D shape each one will make?

Top Tip:

Before you begin each algorithm, remember to clear your screen. Use this code.

```
when space key pressed
  pen up
  erase all
  go to x: 0 y: 0
  point in direction 90
```

I think this algorithm will draw a

```
when t key pressed
  pen down
  repeat 3
    move 100 steps
    turn 120 degrees
```

I think this algorithm will draw a

```
when p key pressed
  pen down
  repeat 5
    move 100 steps
    turn 72 degrees
```

I think this algorithm will draw a

```
when h key pressed
  pen down
  repeat 6
    move 100 steps
    turn 60 degrees
```

Challenge: An octagon has 8 sides. Each angle in an octagon is 45° . Use what you have learnt from the algorithms above to help you to write a new algorithm to draw an octagon.

Top Tip: Drawing sides of 100 steps might make the octagon disappear off the page. Try using a smaller number of steps for each side.

Drawing Regular Polygons Answers

To use a loop to repeat a sequence of instructions for a specific task.



These are possible answers but children's code may vary. The angle and number of repeats must be as shown.

I think this algorithm will draw a **triangle**

```
when t key pressed
pen down
repeat 3
  move 100 steps
  turn 120 degrees
```

I think this algorithm will draw a **pentagon**

```
when p key pressed
pen down
repeat 5
  move 100 steps
  turn 72 degrees
```

I think this algorithm will draw a **hexagon**

```
when h key pressed
pen down
repeat 6
  move 100 steps
  turn 60 degrees
```

I think this algorithm will draw a **octagon**

```
when o key pressed
pen down
repeat 8
  move 50 steps
  turn 45 degrees
```

Drawing Regular Polygons

To use a loop to repeat a sequence of instructions for a specific task.

Top Tips:

Before you begin each algorithm, remember to clear your screen. Use this code.

Remember to save your work.

```
when space key pressed
  pen up
  erase all
  go to x: 0 y: 0
  point in direction 90
```

1. Using the blocks below, write an algorithm to draw a triangle.

```
when t key pressed
  pen down
  repeat 3
    move 100 steps
    turn 120 degrees
```

2. Using the blocks below, write an algorithm to draw a pentagon.

```
when p key pressed
  pen down
  repeat 5
    move 100 steps
    turn 72 degrees
```

3. Using the blocks below, write an algorithm to draw a hexagon with 6 sides. How many times will the instructions need to be repeated?

```
when h key pressed
  pen down
  repeat 
    move 100 steps
    turn 60 degrees
```

Challenge: Can you write an algorithm to draw an octagon. The angles in an octagon are 45° .

Debug: What will you need to change if the shape is too large for the **Stage**?

Drawing Regular Polygons Answers

To use a loop to repeat a sequence of instructions for a specific task.



These are possible answers but children's code may vary. The angle and number of repeats must be as shown.

1. Regular triangle

```
when t key pressed
pen down
repeat 3
  move 100 steps
  turn 120 degrees
```

2. Regular pentagon

```
when p key pressed
pen down
repeat 5
  move 100 steps
  turn 72 degrees
```

3. Regular hexagon

```
when h key pressed
pen down
repeat 6
  move 100 steps
  turn 60 degrees
```

4. Challenge: Regular octagon

```
when o key pressed
pen down
repeat 8
  move 50 steps
  turn 45 degrees
```


Drawing Regular Polygons

To use a loop to repeat a sequence of instructions for a specific task.





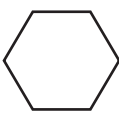


Top Tips:

Before you begin each algorithm, remember to clear your screen. Use this code. Remember to save your work.

```

when space key pressed
  pen up
  erase all
  go to x: 0 y: 0
  point in direction 90
  
```

Write algorithms to draw the following regular polygons. Start each algorithm with the **when key pressed** block and use the letter that starts the shape name.

Shape	Number of sides	Angle of turn
triangle 	3	$360^\circ \div 3 = 120^\circ$
pentagon 	5	
hexagon 	6	
octagon 	8	
decagon 	10	

You can work out the angle you need to turn in each shape by dividing 360 by the number of sides.

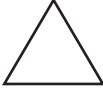



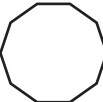
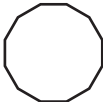
Challenge: Find out how many sides a dodecagon has. Can you write an algorithm to draw this shape?

Top Tip: As you have already used the letter d for decagon, you will have to choose another letter for dodecagon.

Drawing Regular Polygons Answers

To use a loop to repeat a sequence of instructions for a specific task.



Shape	Number of sides	Angle of turn
triangle 	3	$360^\circ \div 3 = 120^\circ$
pentagon 	5	$360^\circ \div 5 = 72^\circ$
hexagon 	6	$360^\circ \div 6 = 60^\circ$
octagon 	8	$360^\circ \div 8 = 45^\circ$
decagon 	10	$360^\circ \div 10 = 36^\circ$
dodecagon 	12	$360^\circ \div 12 = 30^\circ$

```

when t key pressed
  pen down
  repeat 3
    move 100 steps
    turn 120 degrees
  
```

```

when p key pressed
  pen down
  repeat 5
    move 100 steps
    turn 72 degrees
  
```

```

when h key pressed
  pen down
  repeat 6
    move 100 steps
    turn 60 degrees
  
```

```

when o key pressed
  pen down
  repeat 8
    move 50 steps
    turn 45 degrees
  
```

```

when d key pressed
  pen down
  repeat 10
    move 50 steps
    turn 36 degrees
  
```

```

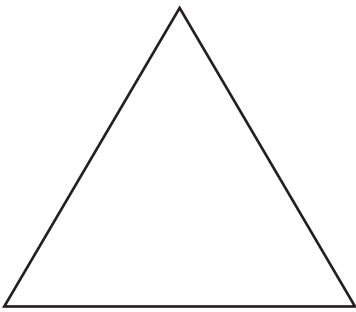
when f key pressed
  pen down
  repeat 12
    move 50 steps
    turn 30 degrees
  
```

What Am I?

To use a loop to repeat a sequence of instructions for a specific task.

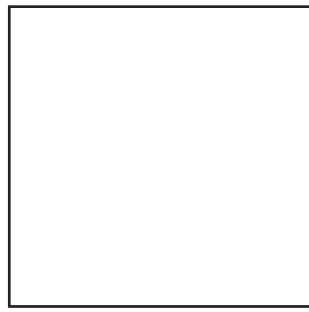


Can you identify these regular polygons? Write the correct name inside each shape. Use the word bank to help you. How many sides and how many angles does each regular polygon have?



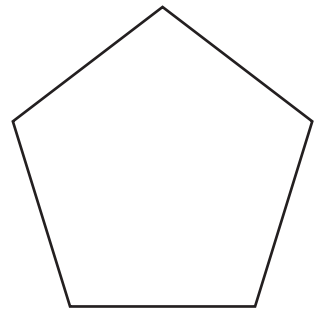
Number of sides

Number of angles



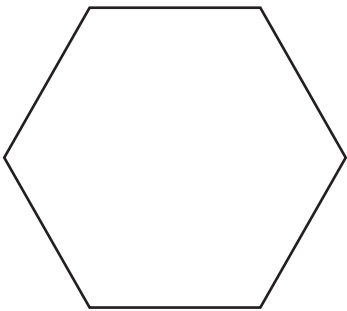
Number of sides

Number of angles



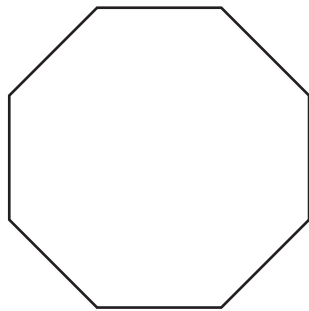
Number of sides

Number of angles



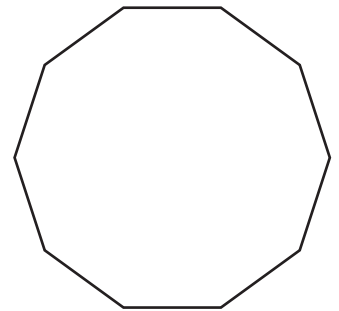
Number of sides

Number of angles



Number of sides

Number of angles



Number of sides

Number of angles

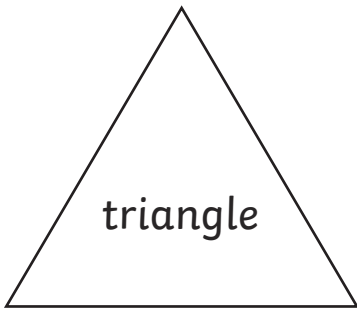
hexagon decagon triangle octagon pentagon square

What Am I? Answers

To use a loop to repeat a sequence of instructions for a specific task.

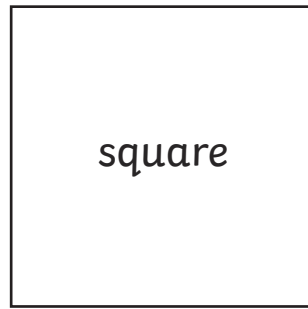


Can you identify these regular polygons? Write the correct name inside each shape. Use the word bank to help you. How many sides and how many angles does each regular polygon have?



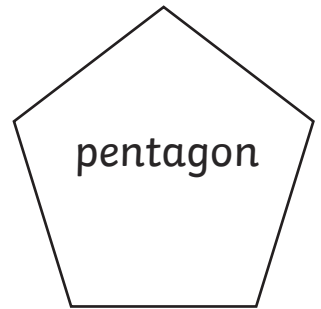
Number of sides

Number of angles



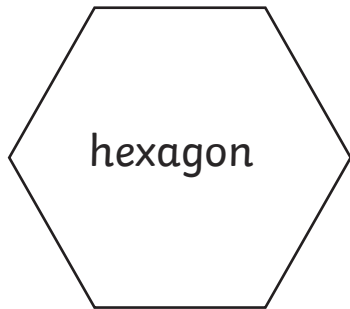
Number of sides

Number of angles



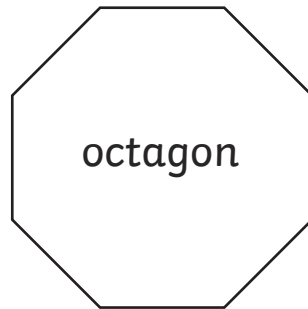
Number of sides

Number of angles



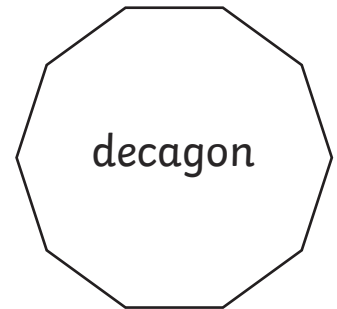
Number of sides

Number of angles



Number of sides

Number of angles



Number of sides

Number of angles

Coding with Scratch: Learning Loops | Repetition Loops
(Drawing Regular Polygons)

To use a loop to repeat a sequence of instructions for a specific task.		
I can identify where in an algorithm repetition will be useful.		
I can customise a repeat block for a specific purpose.		
I can write algorithms to draw regular polygons.		
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