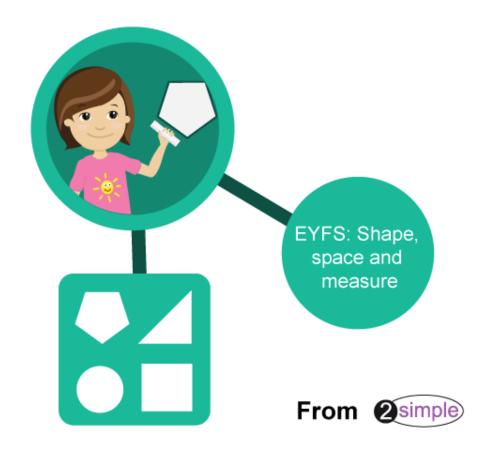


# Computing Scheme of Work

# Mathematics 123



### **Mathematics**



#### **Early Learning Goal**

Shape, space and measure

Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them

**Lesson ideas** 

#### **Resources:**

Maths City 1 (Mini Mash & Purple Mash)
https://www.purplemash.com/#app/games/mc1

# Moths City



Activity 1. Activity 2.

#### Lesson ideas:

#### Rockets

(Select this activity from the main Maths City 1 page). Now choose the middle icon on the bottom row.

#### **Shapes**

#### Activity 1 – Rocket

- Create your rocket using the different shapes.
- Try the first activity, choose the shape you want to use. What will you choose? A circle a triangle a square?
- Can you add the windows to your rocket? What shape are they?
- How many windows have you added to you rocket?
- Are all your windows the same shape?
- How many square windows did you choose?
- How many circular windows did you choose?
- Click on the big purple arrow at the bottom of the page look at all the other rockets, can you see one which is the same shape as your rocket?
- Can you see one which has the same shape of windows as yours?
- Can you see on which is the same colour as yours?





• Drag the rocket (which has some of the same shapes as your rocket) next to your rocket. What happens to the rockets?

#### **Activity 2 - Alien**

- Create your alien using the different shapes.
- What shape are you going to choose for your alien's body?
- What shape are the eyes? How many eyes will you give your alien?
- What colour will you choose for your alien?
- How many tentacles will your alien have?
- Click on the big purple arrow at the bottom of the page look at all the other aliens, can you see one which is the same shape as your alien?
- Can you see one which has the same shape of body as yours?
- Can you see one which is the same colour as yours?
- Drag the alien (which has the same shape of body) next to your alien. What happens to the aliens?

## Maths City 2 (Purple Mash) https://www.purplemash.com/#app/games/mc2





#### Lesson ideas:

#### The Shoe shop

Select the shoe shop icon from the Maths City 2 main page.

#### Now choose the middle icon on the top row. Design a pair of socks

- Explore colour and shape and patterns by creating a design for a sock.
- Use this activity as a starting point for introducing pairs.
- Which sock shall we use the long or the short?
- What colours shall we use?
- Shall we make a pattern?
- What shapes should we use?
- Click on the white arrow at the bottom of the page to see your pair of socks.
- Give the children 2 cut out paper templates of socks.









• Do the same activity using coloured paper shapes to make their own socks to hang on the washing line. Do the same to create pairs of gloves.

#### The Party House

Select the party house icon from the Maths City 2 main page. Now choose the middle icon on the bottom row.

#### Design a birthday cake

- What shape do you want your cake to be?
- Add the shapes to your cake.
- Can you make a repeat pattern using shapes?
- How many candles do you need on the cake?
- Add one more, how many now?
- Take two away, how many now?
- Add more fruit and cream swirls to your cake.

#### Now choose the last icon on the top row.

#### **Estimate sizes**

- Can you wrap the presents?
- Which object do you think fits in each of the boxes?
- Which is the smallest box?
- Which do you think is the smallest present?
- Drag the present to the box, does it fit in the box?
- Which is the largest box?
- Which is the largest present?
- Drag the present to the box, does it fit in the box?
- Which present is left?
- Does if fit into the last box?
- Try this activity in your setting let the children find the right size of object to fit into empty boxes.







#### The Builders

Select the builders yard icon from the Maths City 2 main page. Now choose the middle icon on the top row. Design a building

- Create your own house, will your house be a tall or short building?
- What colour will it be?
- What shape will your building be?
- How many doors and windows will it have?
- What shapes are the windows and doors?
- How many people will live in the house?
- What other things will you find inside the house?
- Try to make a building which uses all the different shapes.

Now choose the last icon on the bottom row. Match the windows to the buildings.

Select the right shapes of windows to the shape of the building using squares triangles and semi circles.

- What shape do you need to choose to match the building?
- Does your shape have any corners?
- How many sides does your shape have?
- What happens inside your shape if you choose the right one? (Look for the animation)
- Find the triangle building.
- Find the round building.
- · Find the rectangle and square building.





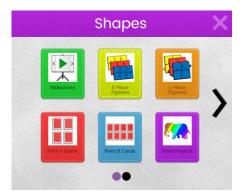
#### Now choose last icon on the top row.

#### Fit the shapes into an outline.

- Look at the shapes on the page, what shapes can you see?
- Look at the shapes at the bottom of the page.
- Can you find any shapes at the bottom of the page that match the shapes at the top?
- Can you match the shapes by dragging them?
- What happens when you have matched all the shapes?
- Can you use the construction bricks to make your own buildings?
- What shapes will you use to make the buildings?
- How big will you make your building?
- Who will live in your building?

#### Shapes PIN – (Mini mash)





#### Lesson ideas:

Go into the teacher's section on Mini Mash and select the 'Shapes' PIN.

Pin the topic pack to the front screen of Mini Mash to give the children access to all the resources to support Shapes

#### Slideshows

- Use the slideshows as a starting point to talk to the children about different shapes we see around us.
- What shapes can the children see in the pictures?
- What shapes can the children see around their room?
- Add labels to different shapes the children find around them, help the children to recognise and say the words.

#### **Paint projects**

- Use the paint projects to talk about the shapes we see around us.
- Which shapes do the children recognise?
- Can they see any of the shapes around them?





• Help the children to recognise shapes in familiar objects that they see every day.

#### Jigsaws and pairs games

- Use the images in these activities to talk to the children about shapes that they recognise.
- Let the children choose a shape for their jigsaw. What do they think the picture in the jigsaw is going to be?
- Can they see the shape they have chosen, in the picture?

#### 2Count

- Make a pictogram of all the shapes you can see around you in the room. You may want to limit the count to part of the room if you have lots of resources to count!
- How many circles can you find?
- How may squares etc.
- Use the pictogram to show the children how many of each shape you have found in the room.

#### 2DIY - (Purple Mash)

https://www.purplemash.com/#tab/pm-home/tools/2diy



#### 2DIY

#### **Activities- Shapes**

#### Lesson ideas, for the teacher-

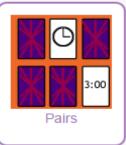
- Create several activities for the children to complete using the shapes activity in 2DIY.
- Start by using a couple of shapes.
   Then make other activities using more complex shapes.
- Let the children explore creating their own shape pictures or give the children printed pictures of some which you have created and see if they can use the same colours and shapes to create their own pictures.

Don't forget, the children can use the arrow keys on their keyboards to make the images bigger, smaller and rotate.









#### 2 Design and Make – (Purple Mash) https://www.purplemash.com/#app/tools/2dam



#### **Activities- Pairs**

#### For the teacher:

- Create simple pairs games with
- matching shapes,
- Matching shapes and colour.
- Matching numbers
- Matching numbers with the right number of objects

#### Lesson ideas:

- Use the different vehicles and shapes to talk to the children about the shapes they can see in the pictures.
- Can the children change the shapes by dragging the lines in and out?
- What happens to the shapes?
- Can you make a square into a rectangle?
- What happens when you change the shape of the triangle?
- Make the house shape. Can you change the shape of the roof? Can you make the roof a triangle shape?

Give the children time to explore the vehicles, the shapes and the house. How can they change the shapes and make objects look different? Do they recognise and new shapes that they have made?



