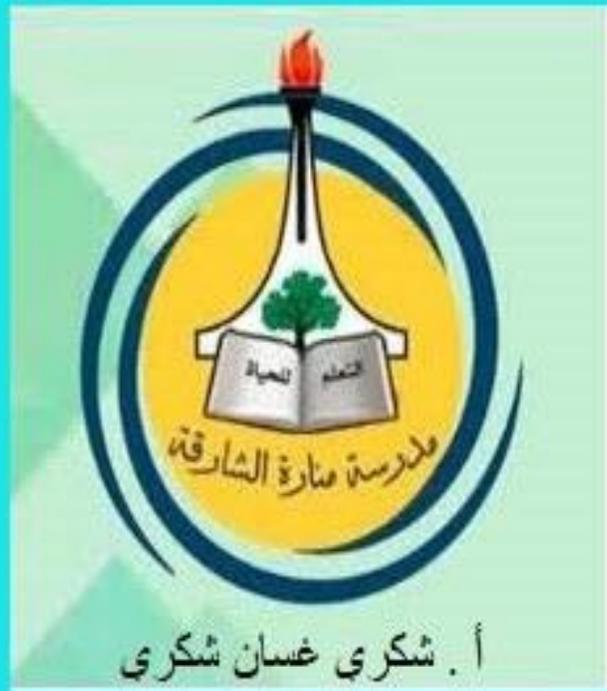


مدرسة منارة الشارقة الخاصة  
مادة التصميم والتكنولوجيا  
الصف 6  
الفصل الدراسي 3

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UNITED ARAB EMIRATES  
MINISTRY OF EDUCATION



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# DESIGN AND TECHNOLOGY

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 GRADE 6  
TERM 3

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Authored and designed  
by a specialised committee from the Ministry of Education

First edition 1438-1439 A.H. / 2017-2018 A.D.

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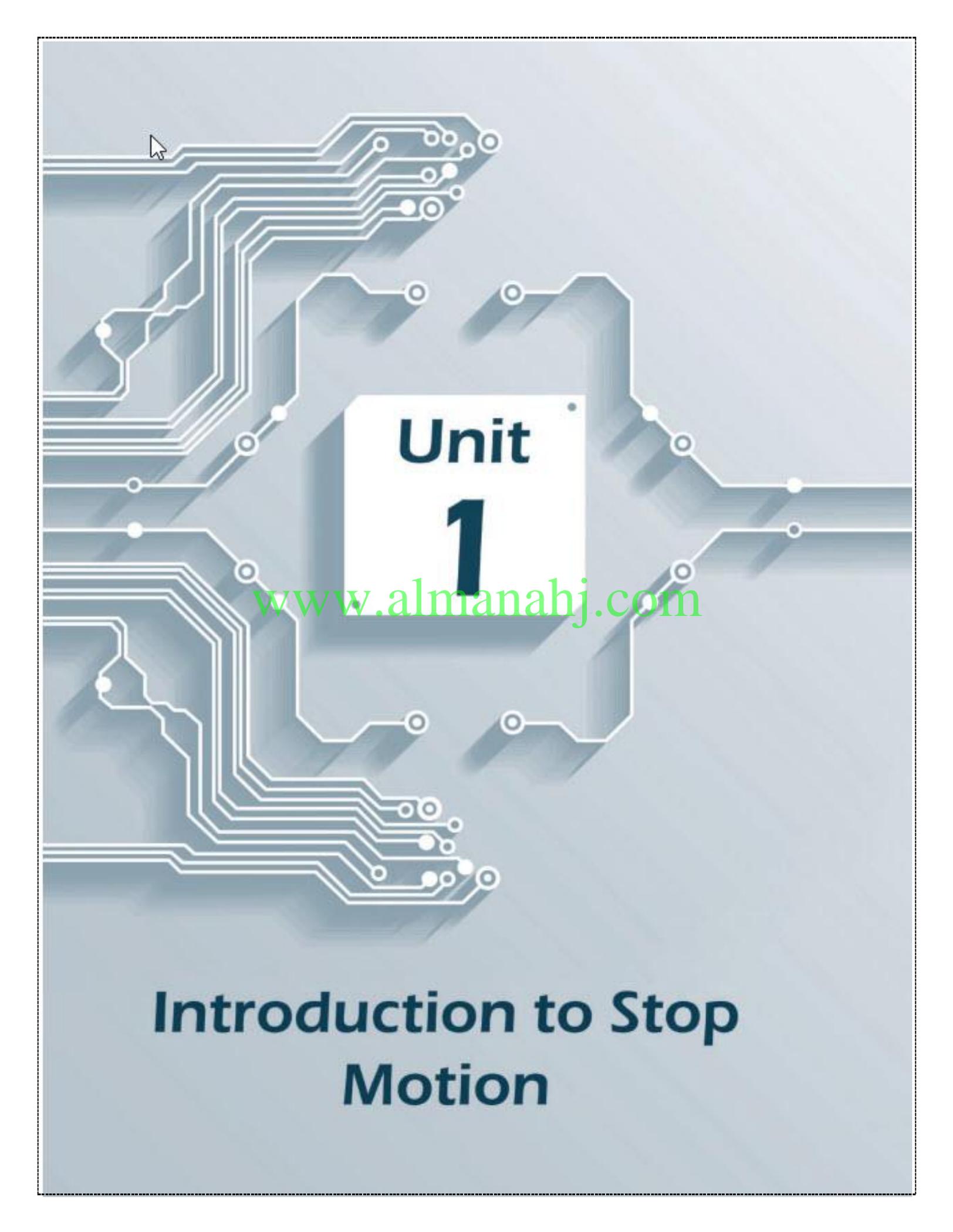
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**Unit**

**1**

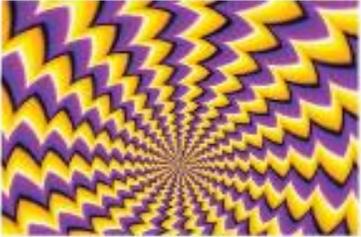
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# **Introduction to Stop Motion**

## Overview

This unit will introduce the stop motion software that will be used to make animations. You will learn about all the different tools and options that are available to you. You will begin by creating some basic drawings. Then progress onto making a simple animation.

## Keyword

Term	Definition	Image
Animation	the process of giving the illusion of movement to drawings, models or non-living objects	
Illusion	when a person's eyes, ears or sense of touch are tricked in some way	
Traditional animation	when a picture is drawn lots of times and when shown together, an illusion that the picture is moving is created	
Stop motion	using a camera to take pictures of objects in different positions and once shown quickly, it creates an illusion	

Word	Definition	Image
Tools	different options available in a software package	

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## Learning outcomes

- Understand the software and its features.
- Identify the different tools available in the software.
- Demonstrate the understanding by creating some basic drawings.

## What is animation?

Animation is the process of giving the illusion of movement to drawings, models or non-living objects.

Illusions happen when a person's eyes, ears or sense of touch are tricked in some way.



### What is animation?

A penguin animation and a real life penguin.



#### Activity 1:

List what is different about both pictures?

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1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_



**Did you know the global animation industry is a multi-billion-dirham industry? People all around the world like animations.**



**Activity 2:**

Draw a picture of your favourite animation character and give three reasons why you like them.

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1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

## The differences between 2D and 3D animation

### 2D

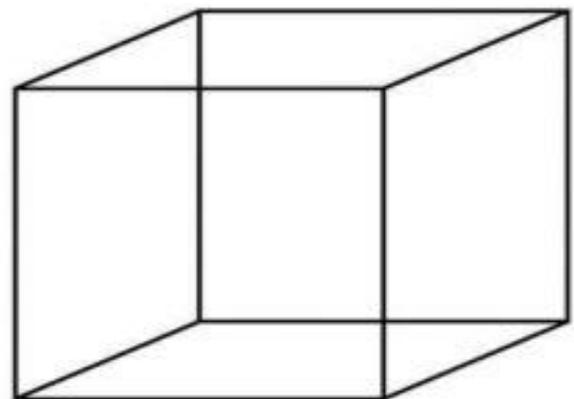
1. 2D stands for 'two dimensional'.
2. Only one face of the shape can be seen.
3. Image looks flat.
4. Not that realistic.



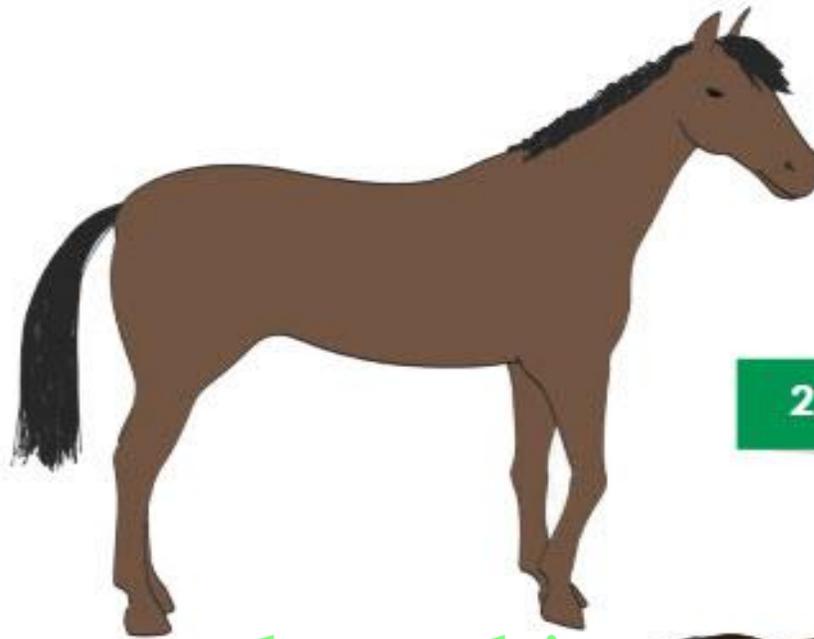
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### 3D

1. 3D stands for 'three dimensional'.
2. These shapes have more depth.
3. More than one face can be seen.
4. Images seem more realistic.



Can you see the differences in the images below?



**2D horse**



**3D horse**

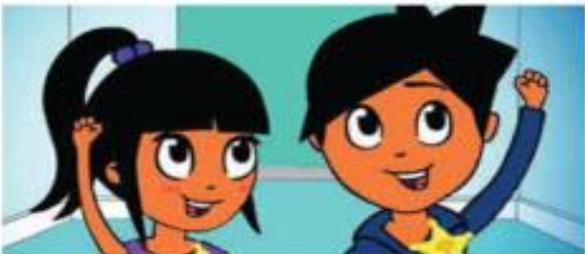


**Discuss the differences you can see with your partner.**



Activity 3:

Write down whether the animations are 2D or 3D

	Animation	2D or 3D?
1		
2		
3		
4		

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We are going to use Stop Motion Studio to make our own animations!



Stop Motion Studio

There are many fun animations that you can make on Stop Motion Studio.

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A fun animation about  
magic water!

## Stop Motion Studio

Let's take a look at the software.



This is what you see when you first open Stop Motion Studio.

Take a look at the two boxes on the left-hand side.



Click this to watch an animation that is already made.

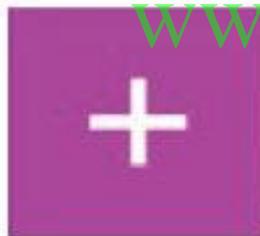


A simple animation for you to watch.

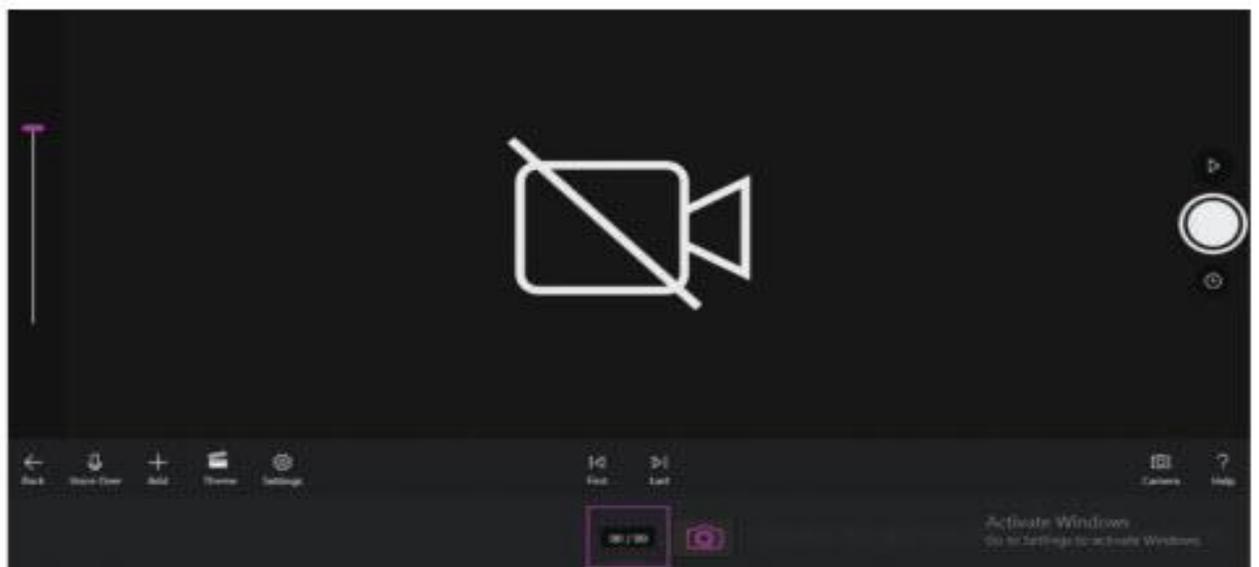
You will be using this to make your own name into an animation.



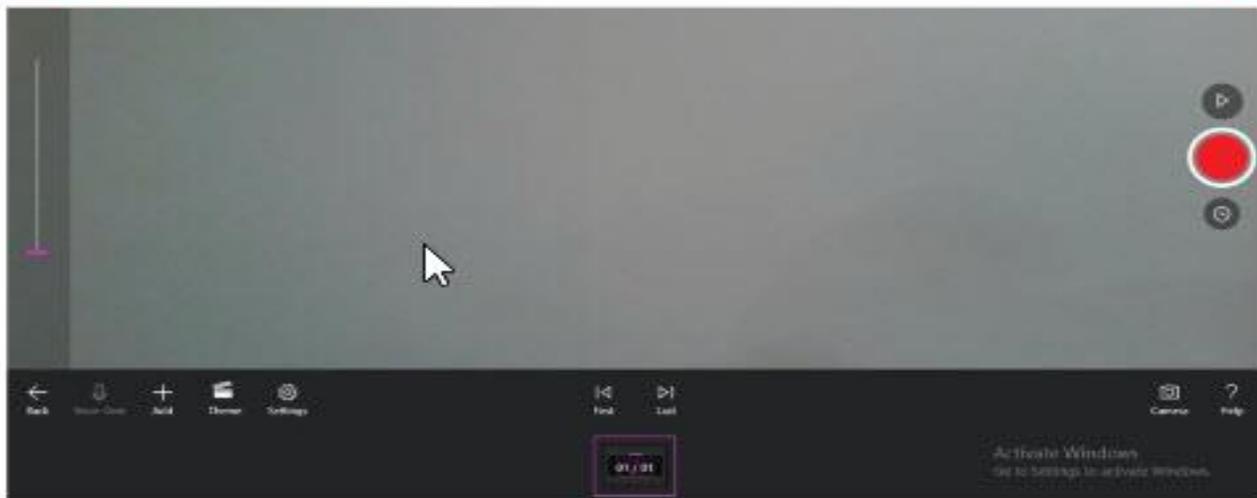
[www.almanahj.com](http://www.almanahj.com)



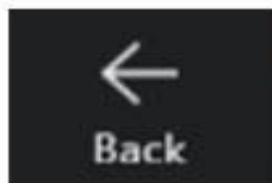
Click this to enter the animation creation room



Switch on your camera.



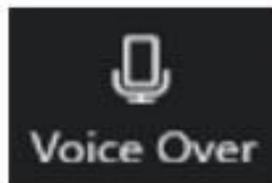
Tools help us make our animations. They are also there to make our animations different.



### The back arrow:

This will take you back to the first page.

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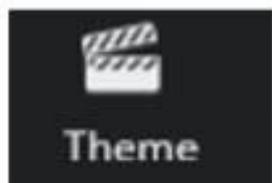
### Voice over:

Add your own voice to your animation.



### Add:

Add your own pictures and videos to your animations.



### Theme:

Use this to select a theme.



### Settings:

Control the movie speed. How fast do you want your animation to be?



**Play:**

Watch the animation you create:

**Camera:**

Take pictures

**Timer:**

Set a timer that's between .5s – 90s.

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**Activity 4:**

Explore the software to get familiar with the features.

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## Basic drawing

Let's create a basic drawing.

You can use your name or anything similar.

### Step 1:

Create your drawing

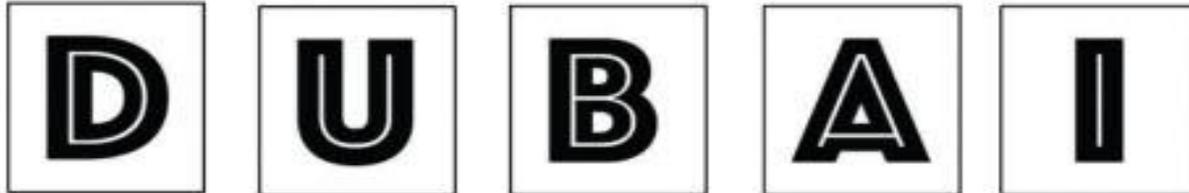
**D U B A I**

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**Step 2:**

Using scissors, cut out each part so they are separate pieces.



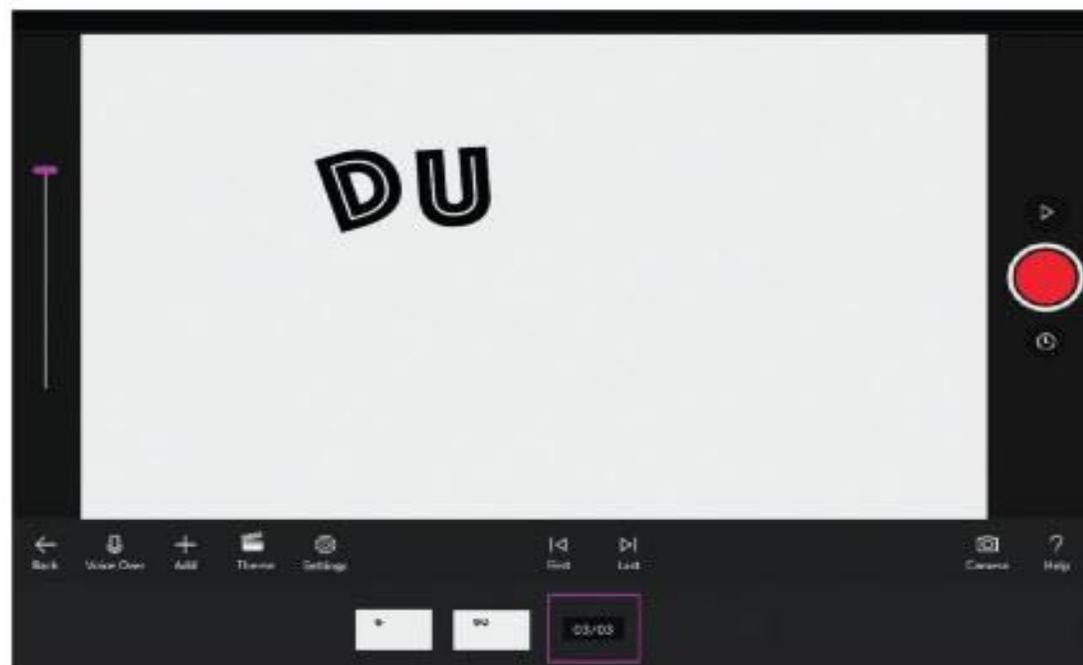
[www.almanahj.com](http://www.almanahj.com)

Your picture is now ready to be made into an animation using Stop Motion Studio.

The most important thing to remember is, a picture needs to be taken after every movement!

### Step 3:

Place the first picture in Stop Motion Studio and press the camera button to take the first picture. Repeat



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### Step 4:

Continue doing this until you have all the pictures on the screen.



Remember: Don't forget to take a picture after every movement!



### Step 5:

Now make your animation move across the screen. Be creative! Use the example below to help.





**Activity 5:**

Create your animation on Stop Motion.



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## Basic animation

Now let's make a basic animation.

### Step 1:

Make 5 drawings of an animation to show walking.



picture 1



picture 2

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picture 3



Notice that each drawing is different. Can you see that the arms and legs have moved in each picture?



picture 4



picture 5

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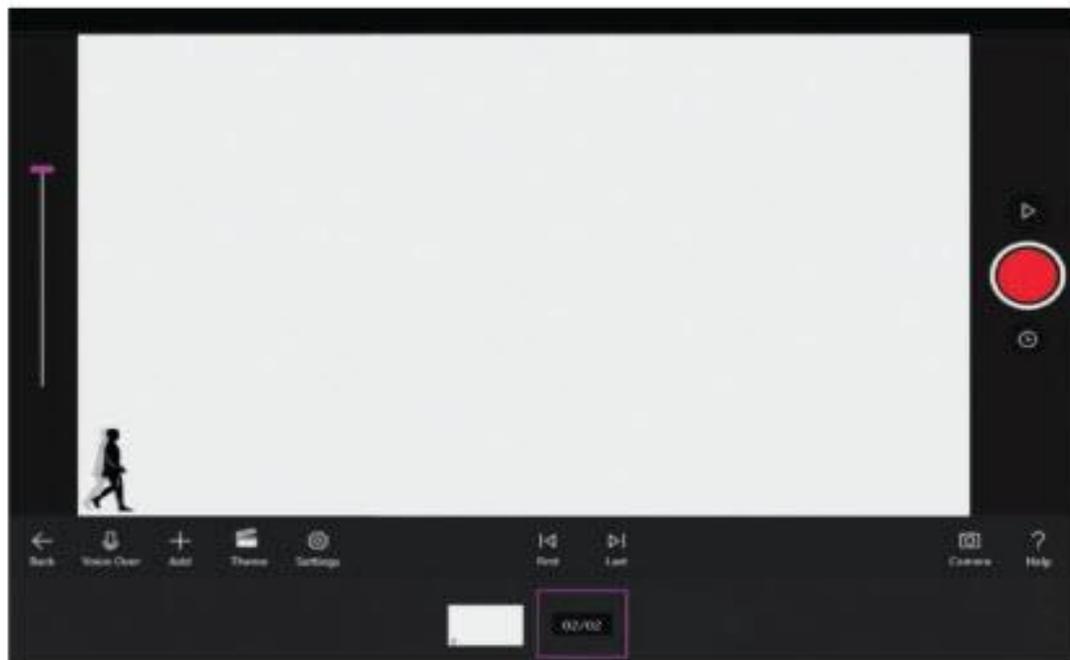


**Step 2:**

Place picture 1 in the bottom, left corner of the screen and take a photo.

**Step 3:**

Place picture 2 so that it is overlapping picture 1 slightly.



**Step 4:**

Remove picture 1 and take a photo of picture 2 alone.



Take a photo when there is only one picture on the screen.



**Step 5:**

Continue this process along the page, keeping the animations close together.

**Step 6:**

Play back your animation to see your man walk from one side of the screen to the other.



Activity 6:

Draw arrows to what each symbol means.



back arrow



include your voice



add pictures and videos



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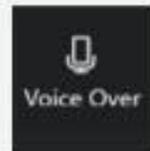
Theme



Settings



play your animation



take a picture



set a timer

## Unit summary

Stop Motion Pro is a software used to make animations.

1. Start your animation by drawing each part onto a separate piece of paper.
1. Place your first image on the screen and take a picture.
2. Place the next picture close to the first picture.
3. Remove the first picture and take a photo of the second picture.
4. Keep repeating this process, taking photos each time.

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**Unit**

**2**

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**More on Frames**

## Overview

Students will look at working with frames in more detail. Students will be able to create an animation using their own images. This unit will encourage students to draw their own images and possibly use some images from the web. Students will also add text to their animations making it look professional.

## Keyword

Word	Meaning	Image
Animation	using drawings to make videos or movies, like cartoons	
Characters	a person in an animation, book or film.	

## Learning outcomes

- Demonstrate the skills learned and apply them.
- Draw images to be animated.
- Create an animation using more images and adding text to frames.

## Making our own animations

Now that we have learned all about frames, we can write our own stories and begin our own animations.



Video of a duck and dog

Watch the short video above to get an idea of what you will be making.

## Making characters

Every animation we watch is made up of characters.

Let's take a look at some well-known characters.



Can you name some characters? Who is your favourite character?

## Drawing

It is important to know how to draw and colour when making an animation.

Drawing is a skill, and with practice it gets easier.

Let's start animating!

You will need:



Paper



Pencils



Scissors



A laptop



Laptop camera

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## Animation 1 – A starfish

We will now make a starfish animation.

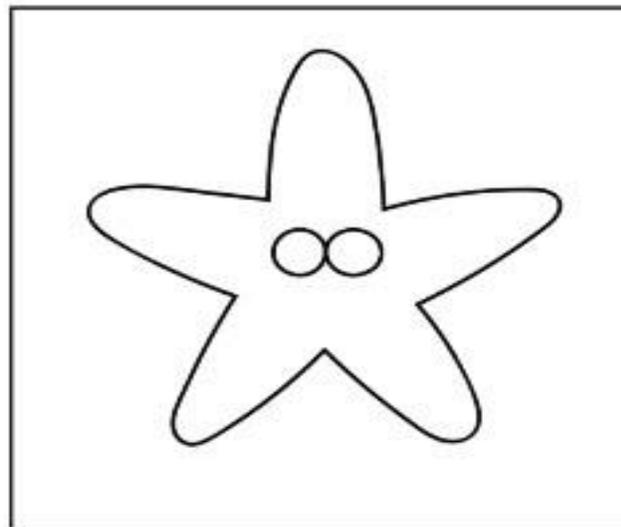
### Step 1:

First, draw the body of a starfish.



### Step 2:

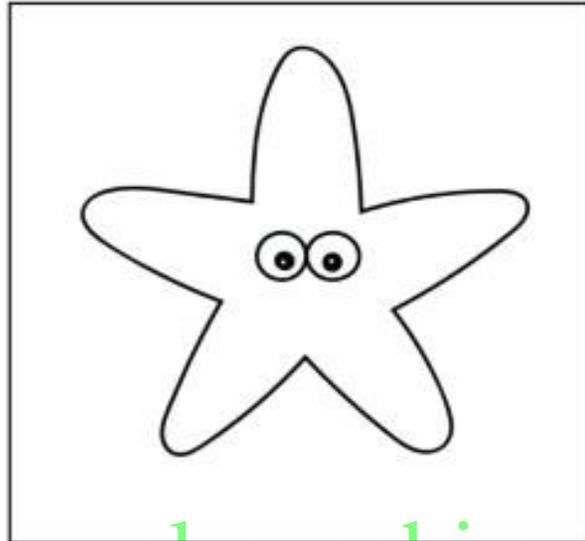
Now, draw the eyes.





**Step 3:**

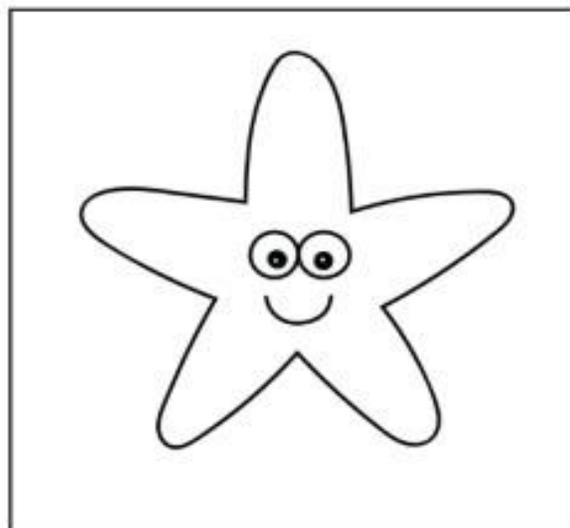
Next, draw the pupils.



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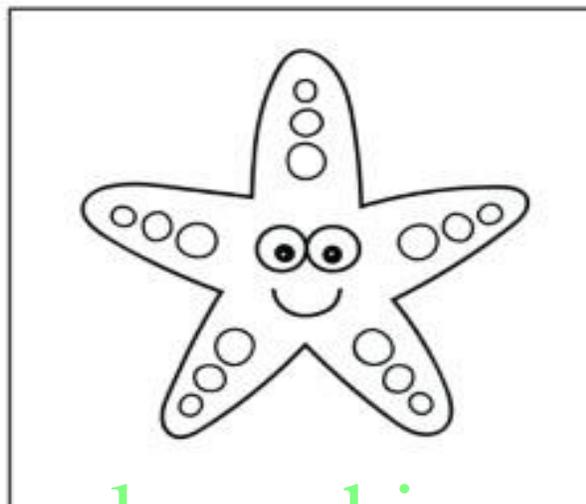
**Step 4:**

Now, draw the smile.



**Step 5:**

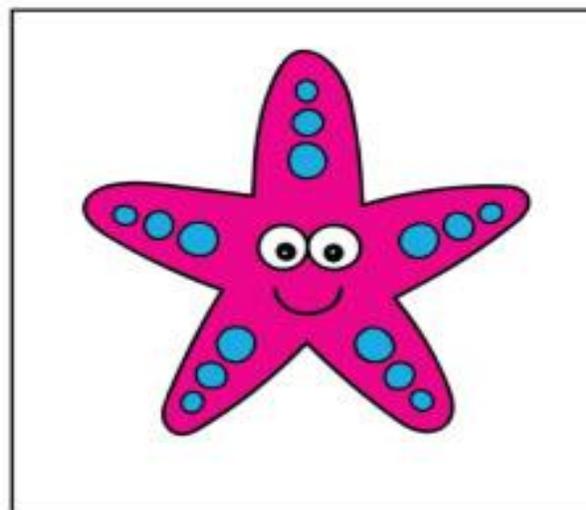
Add details to the body.



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**Step 6:**

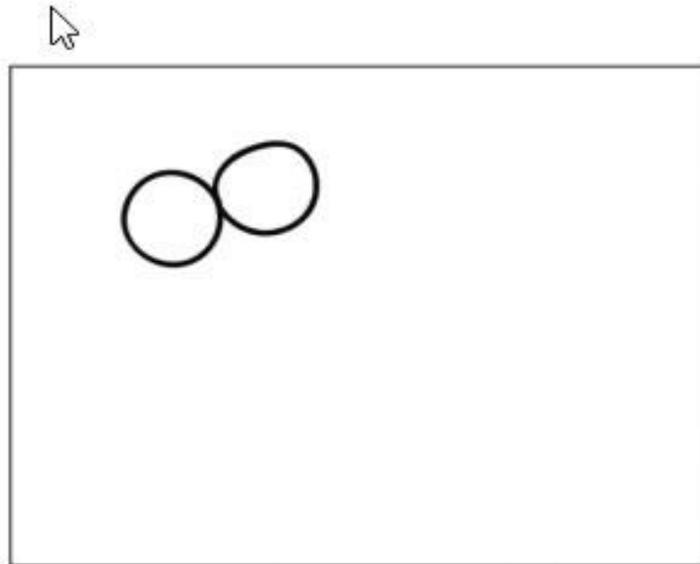
Finally, add some colour to the starfish.



## Animation 2 – A fish

### Step 1:

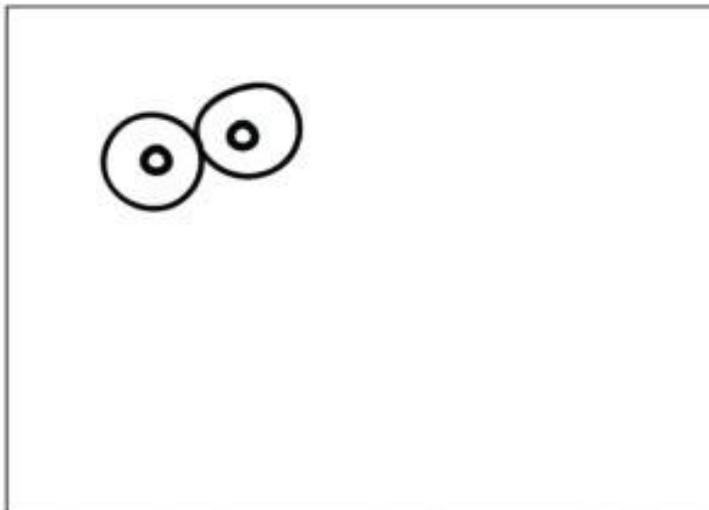
First, draw the outline of the eyes.



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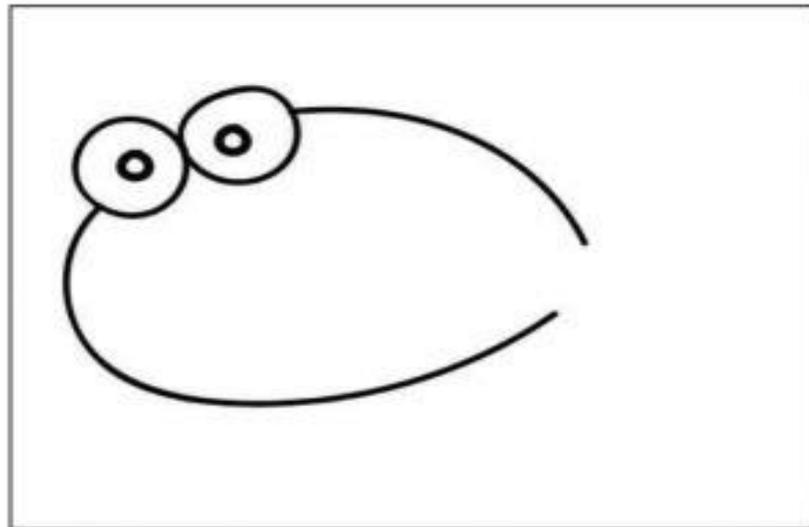
### Step 2:

Now, draw the pupils inside the eyes.



**Step 3:**

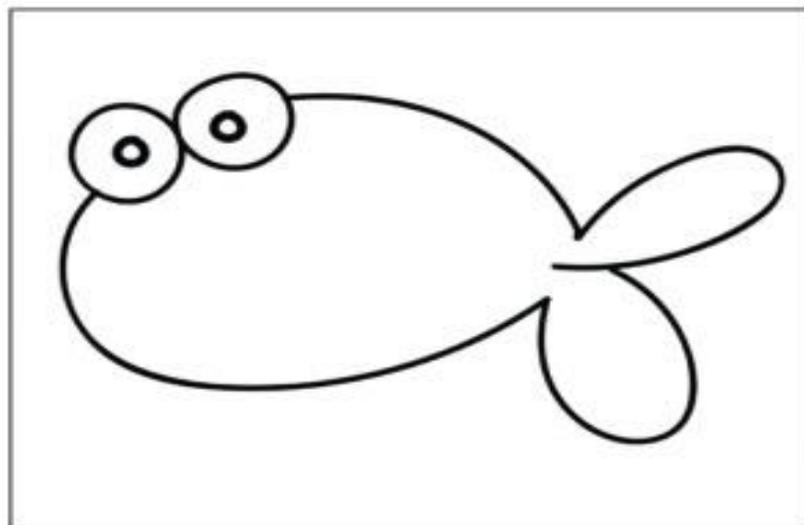
Draw the body of the fish.



[www.almanahj.com](http://www.almanahj.com)

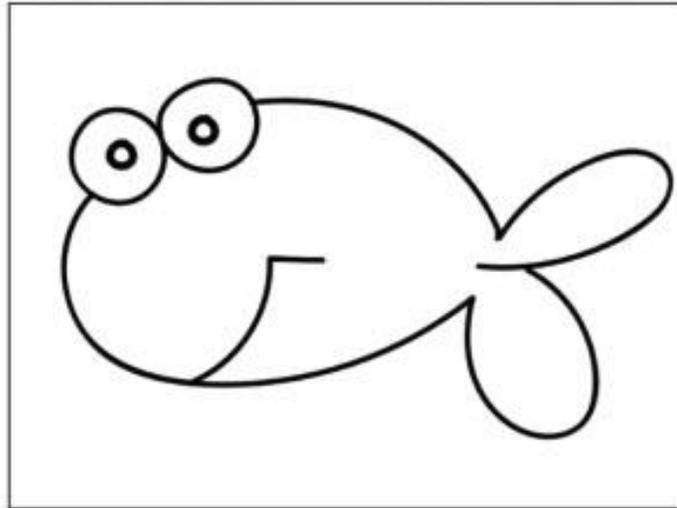
**Step 4:**

Now, draw the tail.

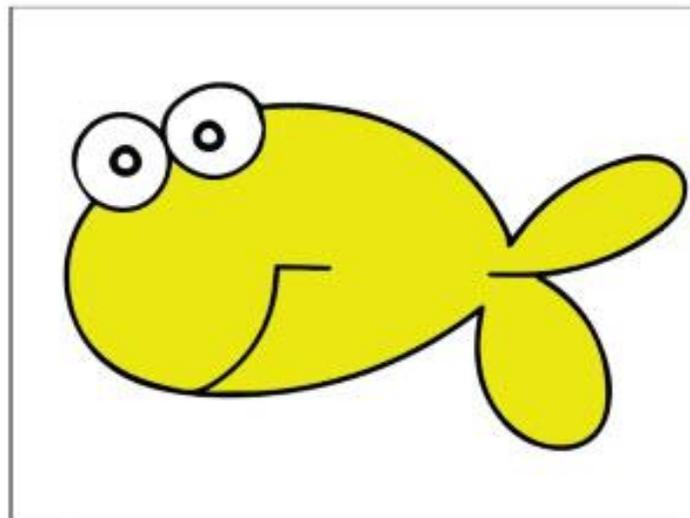


**Step 5:**

Now, add a smile.

**Step 6:** [www.almanahj.com](http://www.almanahj.com)

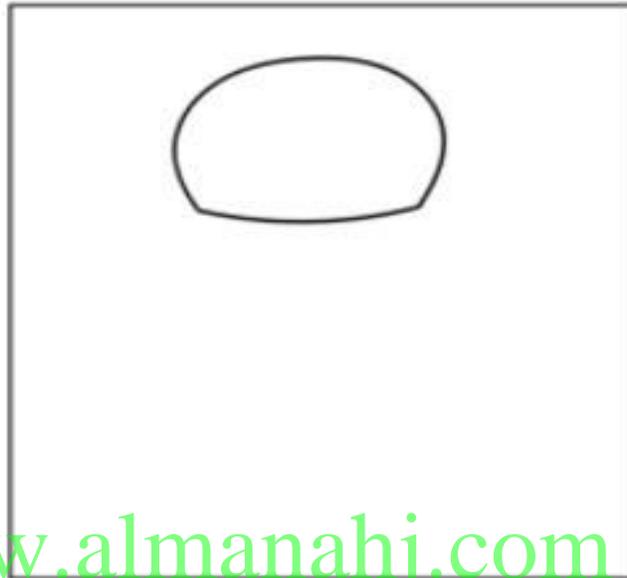
Now, add some colour to your fish. Be creative!



## Animation 3 – Jellyfish

### Step 1:

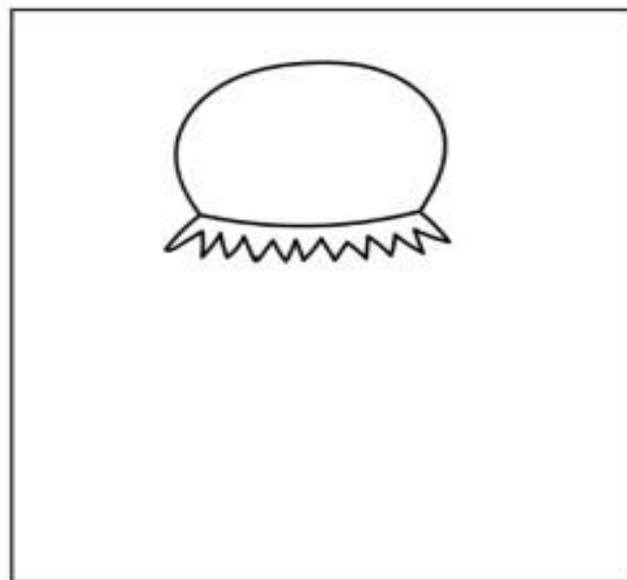
Draw the head of the jellyfish.



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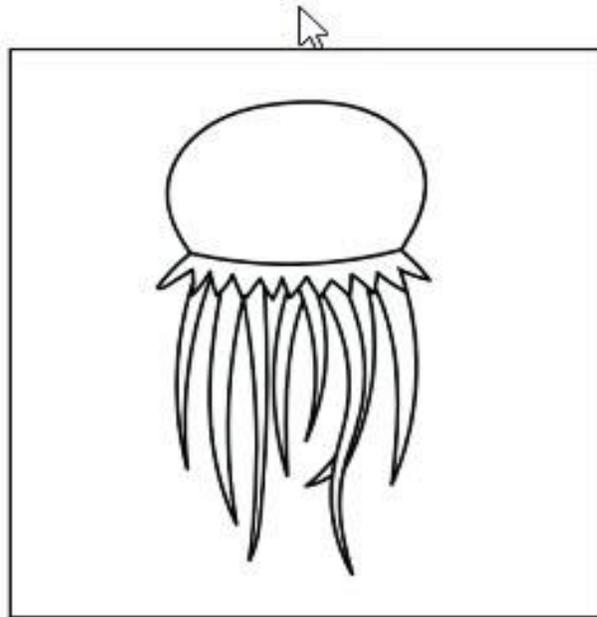
### Step 2:

Add details to the body.



**Step 3:**

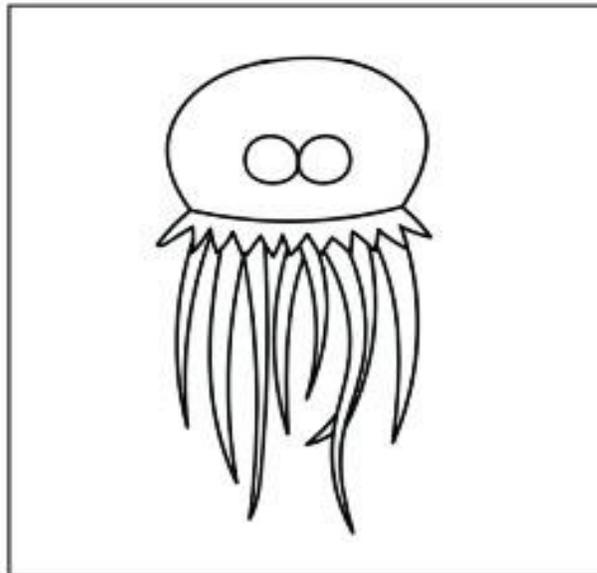
Now, draw the arms.



**Step 4:**

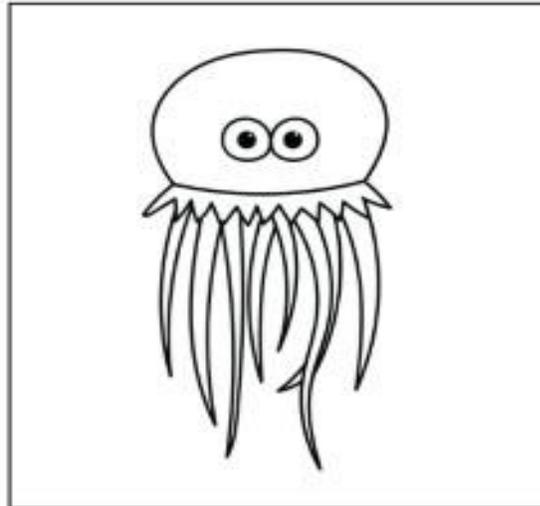
[www.almanahj.com](http://www.almanahj.com)

Draw the eyes.



**Step 5:**

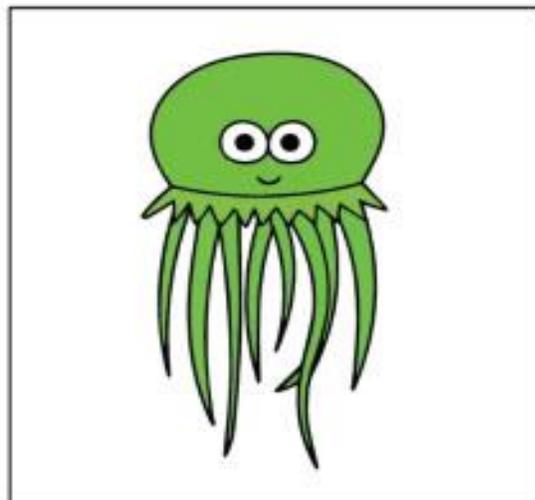
Add the pupils.

**Step 6:**

Draw a smile.

**Step 7:**

Finally, add some colour.





The characters you have chosen will be in your story.

Every animation character is unique and has their own personality.

Twins look the same but have different personalities.



Do you know any twins? They look the same, but are their personalities the same?

### Inside out

Have you watched the movie inside out?

Each character is different and unique because of their emotions.



Activity 2:

Link the character with their name.



Disgust



Anger



Sadness



Joy



Fear

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Watch the video below to see if you got them right.



Inside out character video

### Making a story

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A good story should include the following:

- Characters
- Beginning
- Middle
- End
- Setting

All stories follow this basic structure.

### Beginning:

- Who are the characters?
- What is the setting?

### Middle:

- What is happening to the characters?
- What is the problem?

### End:

- How did the characters solve the problem?
- Did the characters change?

Watch the video below that summaries what has been said.



How to write a story.



**Activity 3:**

**Characters:**

---

---

---

---

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---

---

---

**Beginning:**

---

---

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---

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**Middle:**

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---

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---

---

---

**End:**

---

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---

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---

---

## Stop motion

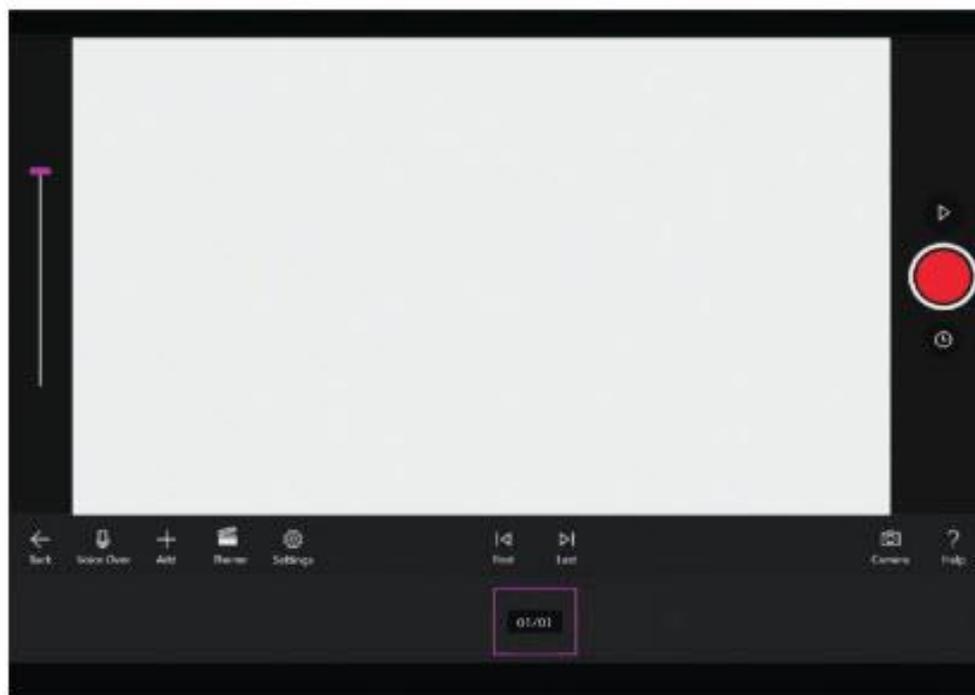


Now that we have our characters and our story is written, we can start animating using stop motion.

Use the skills you have learned so far to put your story together.

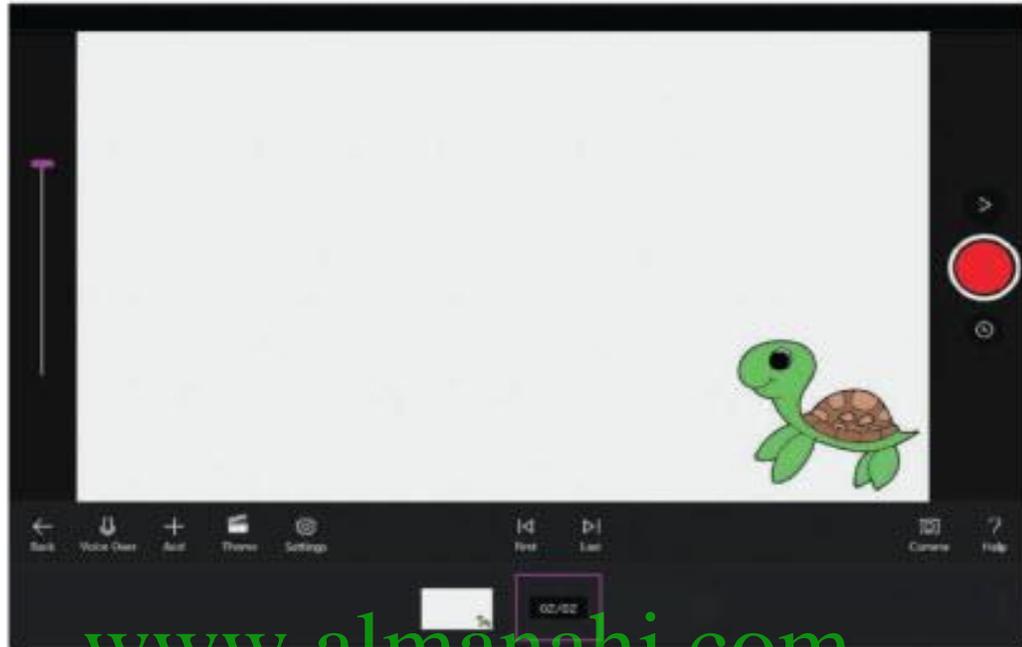
### Step 1: [www.almanahj.com](http://www.almanahj.com)

Open Stop Motion Studio and check if the camera is connected and the button is red.



### Step 2:

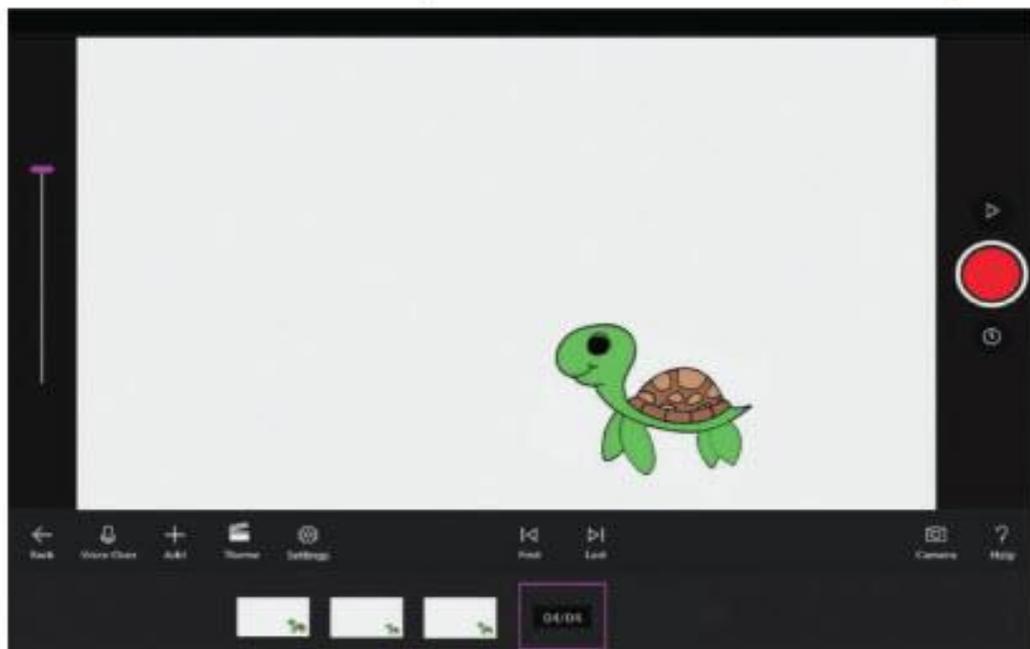
Place your chosen character in front of the camera and **take a picture**.



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### Step 3:

Move the starfish forward and up to make it swim. **Take another picture**.



**Step 4:**

Continue repeating this process, moving the starfish across the screen.



It is important to remember that a picture needs to be taken after each movement.

**Step 5:**

 Play back your animation to see your fish swim across the screen.



Remember to save your work!

## Adding speech

Now that we know how to draw our animations and make them move, we can now add text to make our characters talk. It is really easy!



Remember the name animations we made in unit 1?



### Step 1:

Draw a speech bubble.

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### Step 2:

Add text to the speech bubble.



### Step 3:

Place speech bubble under the camera and take a picture.

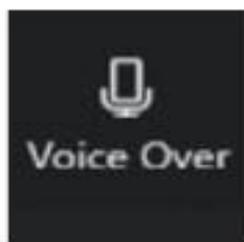


### Adding voice

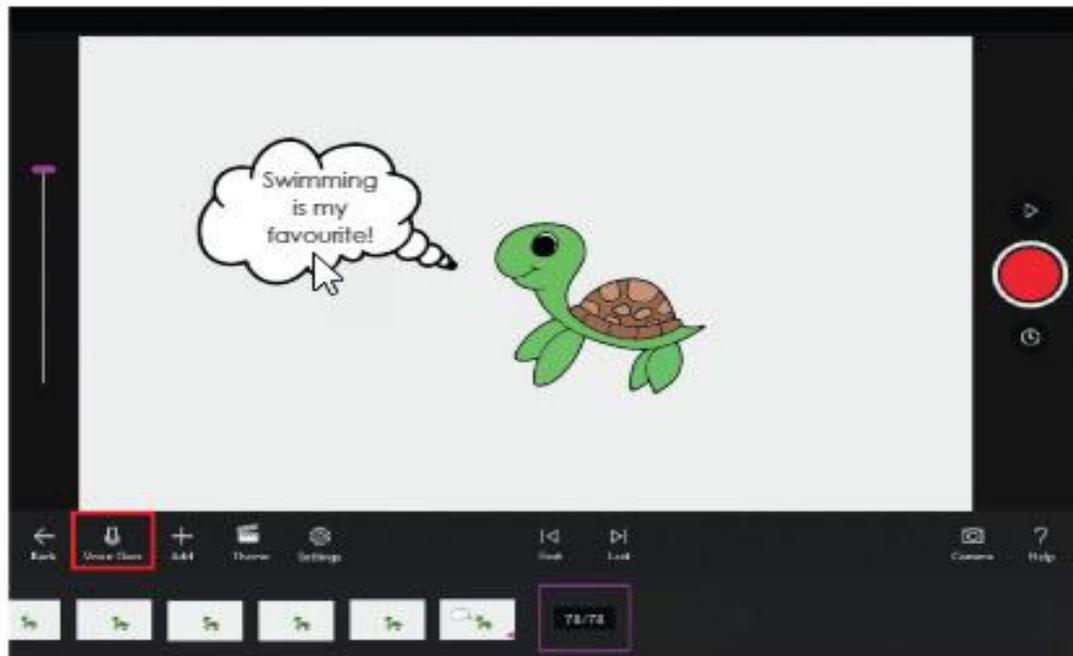
The last thing we need to learn to do is to add our voice.

### Step 1:

Click on the Voice Over button and speak to record your voice.



The voice button is next to the back arrow.



Once you have finished recording, a sound symbol will appear on the frame.

This shows that the sound has been recorded.





**Activity 4:**

Plan and create your own movie.

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1  
1 1  
1 0 1  
1 0 1  
1 1  
1 0 1  
1 0 1  
1 0 1  
0 1 0  
1  
1 0 1  
0 1 0  
1 0



## Student evaluation

Briefly describe what your video was about.

What did you enjoy the most about making this video?

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What didn't you enjoy?

What would you do differently next time?

## Peer evaluation

Name of reviewer

What do you like about the video?

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What can be Improved?



## Teacher evaluation

	Mark	Overall
<b>Story</b>		
An interesting story was written.	/5	/10
The beginning, middle and end of the story were clear	/5	
<b>Flow of movement of characters</b>		
Characters show smooth movement	/5	/10
The flow of the movie is smooth	/5	
<b>Dialogue of characters</b>		
Good use of speech	/5	/10
Voice over is used for each character	/5	
<b>Overall presentation</b>		
Good drawings and colourings	/5	/10
Neat and well-presented video	/5	
		/40

What was particularly good?

--

What could have been improved?

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What could have been improved?

A large, empty rectangular box with a thin black border, intended for students to write their answers to the question above.

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**Unit**

**3**

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**UAE Theme**

## Overview

Students are to work on their own individual project by using stop motion to create a movie about the UAE. Students will use all the skills learned throughout the book and apply these to their movie. Students will begin by planning their movie on paper. Then, create a storyboard to detail what each frame of the movie will include. Students will also add music and voice-over to the video.

## Keyword

Word	Meaning	Image
UAE	United Arab Emirates	

## Learning outcomes

- Plan a movie about the UAE and sketch the plan on paper.
- Demonstrate the skills learned in previous units and apply them to create the movie.
- Add music and voice over to the movie.

## Project overview

Now that you know how to use stop motion, you will make your own individual video about the UAE.

We will start by planning the video on paper and then you will make it on stop motion by adding your voice and music.



Think about:

- How you will represent your county in a video.
- Why the UAE is famous.



The video below talks about the 7 emirates of the UAE.



The 7 emirates of the UAE

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### Activity 1:

What are the 7 emirates of the UAE?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_



**Activity 2:**

Match the picture with the Emirate:



Fujairah



Sharjah



Abu Dhabi



Dubai

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**Activity 3:**

Name your favourite Emirate: \_\_\_\_\_



Give 3 reasons for why it is your favourite Emirate.

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_

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### Final Project

Just imagine you were to tell someone from a foreign country, who has never visited, all about the UAE. What would you tell them?

Watch the stop motion video below about England.



Stop motion video on England.





**Activity 4:**

What did you learn from the video? Can you name three things?

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_

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**Plan for your movie**

What are you going to include in your video that will teach someone about the UAE?

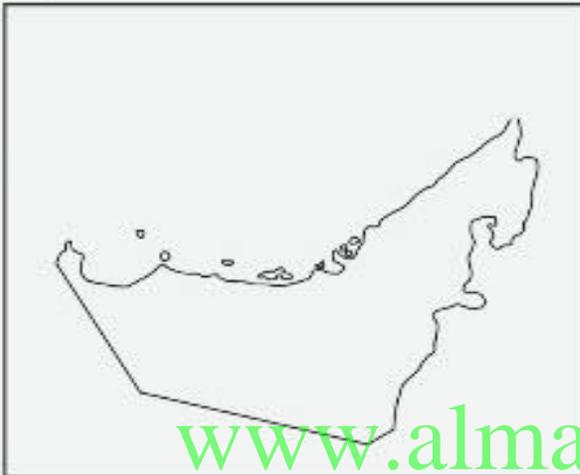
Let's create a storyboard.



**Activity 5:**

Now make your own storyboard. Decide what you want to include in part of your video. The first four have been done for you.

1



Map of the UAE

2



Coloured with the flag colours – red, black, white and green

3



The UAE

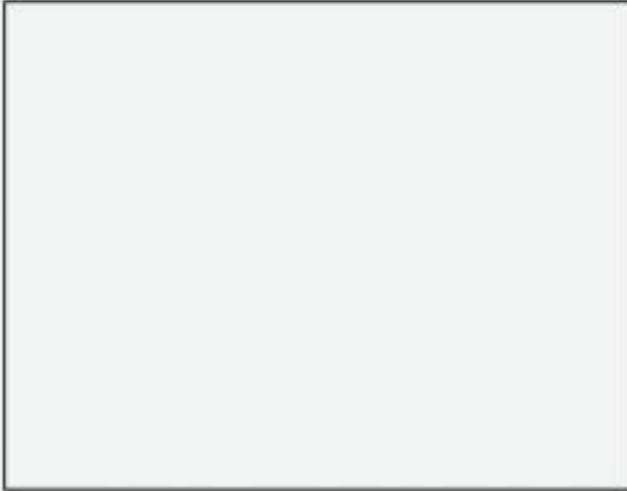
4



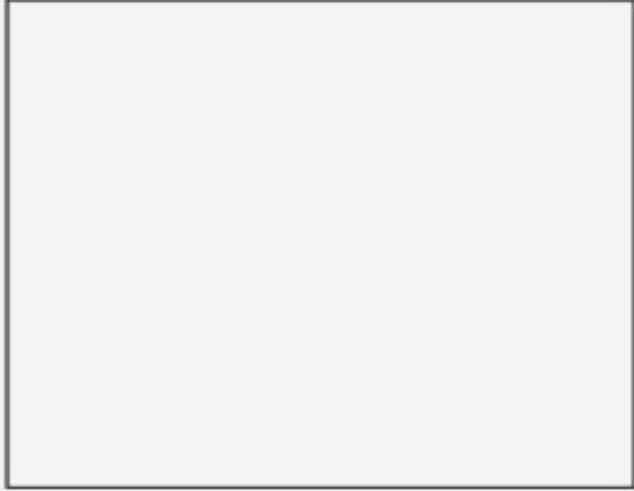
Name and map together

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5

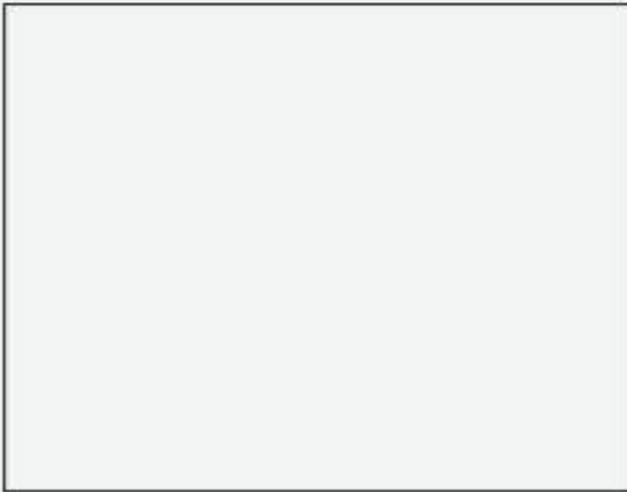


6



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7



8



## Stop motion studio

Now you are ready to begin your animation.

Think about stop motion while you design your story. Will you be able to make it?

You will need:



Paper



Pencils



Scissors



A laptop



Laptop camera

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**Activity 6:**

Plan and create your own movie.

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