

شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية



الملف حل الكتاب كاملاً

[موقع المناهج](#) ← [المناهج الإماراتية](#) ← [الصف الثالث](#) ← [تصميم](#) ← [الفصل الأول](#) ← [الملف](#)

روابط مواقع التواصل الاجتماعي بحسب الصف الثالث



روابط مواد الصف الثالث على تلغرام

[الرياضيات](#)

[اللغة الانجليزية](#)




[اللغة العربية](#)

[التربية الاسلامية](#)

المزيد من الملفات بحسب الصف الثالث والمادة تصميم في الفصل الأول

حل الكتاب كاملاً	1
الأولى الوحدة مراجعة Unit1 Review	2
مراجعة شاملة الوحدة الأولى	3
حل الوحدة الثانية Cards and Graphics Technical	4
حل الوحدة الأولى Technologies Computing	5

Activity key

	Theory activity
	Interactive activity
	Lab activity



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Unit 1: Computing Technologies



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Activity 1

{

Complete the wordsearch to find the keywords.

COMPUTER	ELEMENTS	SYSTEM	PROCESSING
CPU	MEMORY	RAM	

TA

X X V V F O F M S C P U M
V R Z K L G N E P I V I I
K W O K E L E M E N T S Q
B R A M D V W O Z P A Y Q
B C D P M M Q R I R C S W
Y O U W Z T L Y G O Z T A
N M S T V W R W S C L E A
W P V E D P W P G E P M Q
L U I Y R F A X U S E F W
M T W Q S O P B B S W V A
V E V N M J V L U I N T S
G R H R C F W A H N O A V
C P R M J N H F L G Z W S



Activity 2

{

True or False

TA

No.	Sentence	True	False
1	Computer elements are a small part of a system.		X
2	Computer elements are needed for computer systems to work.	X	
3	RAM stands for Random Access Memory.	X	
4	CPU stands for Cool Power Unit		X
5	Input and output are needed for computer systems to work.	X	

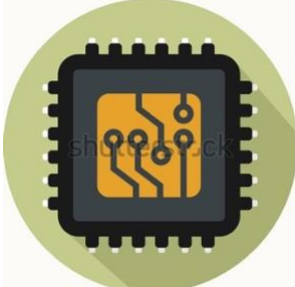






Activity 3

{

Match the image to the keywords.

TA

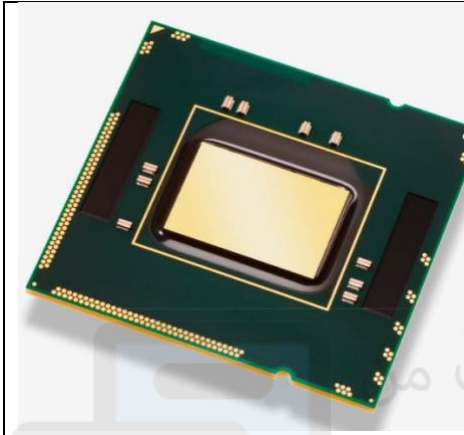
 <p>www.shutterstock.com - 1078472804</p>		Main Memory (RAM)
 <p>www.shutterstock.com - 309432778</p>		Input device
 <p>www.shutterstock.com - 131350889</p>		Central Processing Unit (CPU)
 <p>www.shutterstock.com - 621403018</p>		Output device
 <p>www.shutterstock.com - 621403018</p>		Secondary storage / Hard drive



Activity 4

{

Select the images that show the main computer elements only.



TA



www.shutterstock.com - 127594298



www.shutterstock.com - 1505379461



www.shutterstock.com - 1677464869

TA

TA



TA





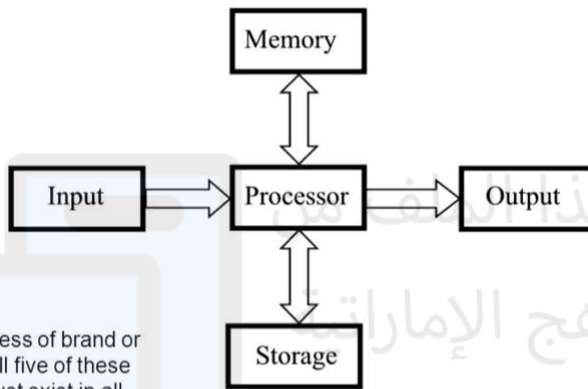
Activity 5

{

Drag and drop the name of the elements into the computer system model below.

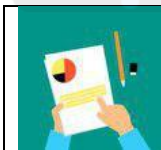
CPU	Memory	Storage	Output	Input
-----	--------	---------	--------	-------

TA



Regardless of brand or model all five of these parts must exist in all complete computer systems

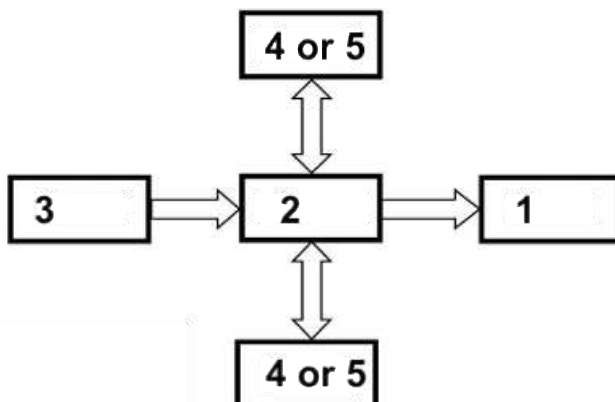
Memory and storage are interchangeable



Activity 6

{

Match the images to the correct places in the computer system model below.




	Activity 7
---	-------------------

{

True or False

TA

No.	Sentence	True	False
1	Common problems do not happen in a computer system.		X
2	All computer systems will have some small issues.	X	
3	Only computer experts can fix issues with computers.		X
4	Fixing common problems is finding issues within a computer system and solving them easily.	X	

	Activity 8
---	-------------------

{

Drop down Menu

TA

No.	Sentence
1	If the keyboard does not work it is a hardware problem .
2	If the printer stops working it is a hardware problem .
3	When the computer is slow it is a software problem .
4	When the monitor is blank it is a hardware problem .
5	If documents do not open it is a software problem .
6	If no sound comes out of the speakers it is a hardware problem .

	Activity 9
---	-------------------

MCCQs

1	Monitor is not displaying anything	Check if all the wires are connected correctly Install the correct software.
2	Operating system not loading	Update the OS on regular basis Check if all the wires are connected correctly

3	Keyboard or mouse is not working	Check if all the wires are connected correctly Shutdown and restart the computer system
4	Computer is slow	Close the internet browser. Shutdown and restart the computer system

	<h2>Activity 10</h2>
---	----------------------

{

Short answer questions.

Answer the questions below.

1	What are the five main elements in a computer system?
	The five main elements are input, output, CPU, memory and secondary storage.

2	What does CPU stand for?
	CPU stands for Central Processing Unit.

3	Name three types of removeable storage.
	Three types of removeable storage are USBs, external hard drives and CDs.

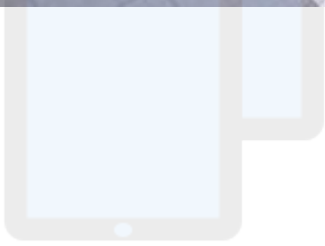
4	Explain what fixing common problems is.
	Fixing common problems is finding and solving problems within a computer system.

5	What is one of the easiest and most used ways to fix common problems?
	One of the easiest ways to fix common problems is just to shutdown the computing system and restart it again.

Unit 2: Technical Graphics and CAD



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Activity 1

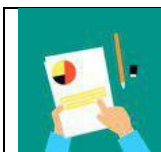
{

Complete the wordsearch to find the keywords.

TECHNICAL	GRAPHICS	POLYGONS
	CAD	TOOLBAR

TA

T U A F E E A Q W V D T
S W R L V K Q K K Z F O
C R B P E L K H I U K Z
Q I O T E C H N I C A L
Z F Y R X Q N D U M P X
R O P O L Y G O N S H R
P K X J A N R W V Z V J
Y Q H C C R T F U N C J
T X W P G R A P H I C S
J O Q M O T O O L B A R
H L E X P S T F I Z X U
C M F C A D S T A G E Y

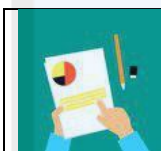
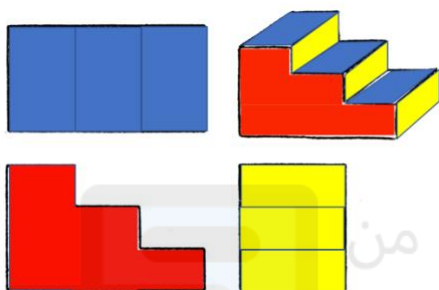


Activity 2

{

Colour the faces of the objects to match the 3D model.

TA



Activity 3

{

Draw the shapes freehand in the space provided. Name the shapes.

TA

Any appropriate sketch of the correct shape



Activity 4

{

Draw a robot using shapes from activity 3.

TA

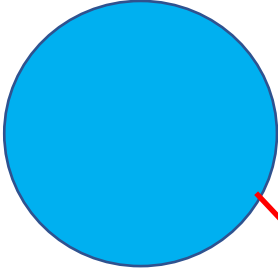
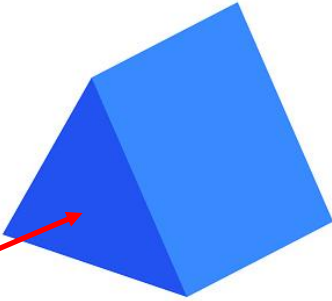
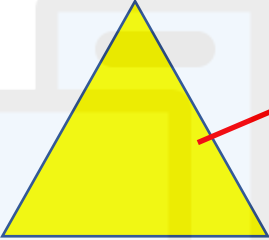
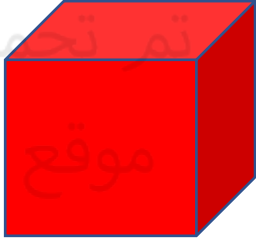




Any appropriate sketch of a robot using shapes from activity 3. Students are encouraged to colour in their sketch.



Activity 5

{

Match the 2D shapes to the 3D shape.

Red arrows indicate the following matches:

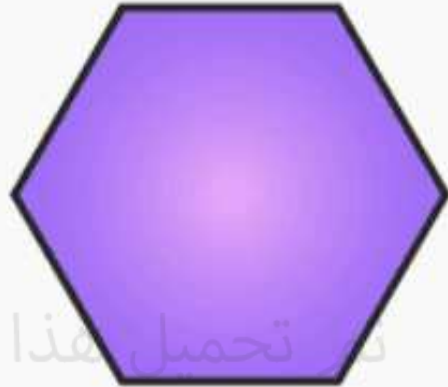
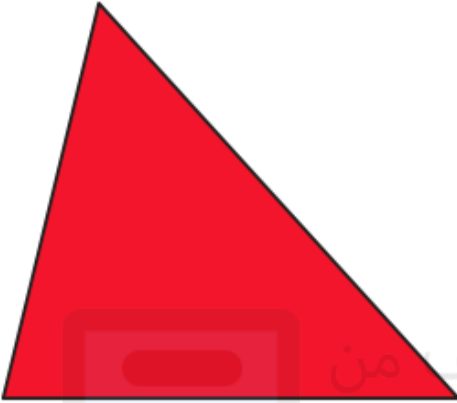
- Blue circle to Red cube
- Yellow triangle to Purple cylinder
- Green rectangle to Orange rectangular prism
- Purple square to Blue pyramid



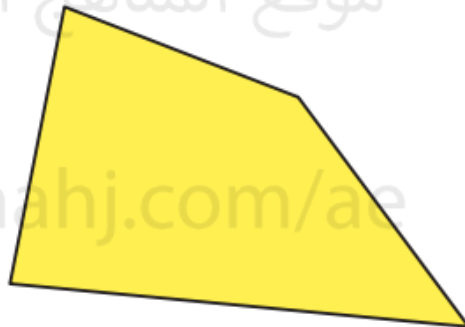
Activity 6

{

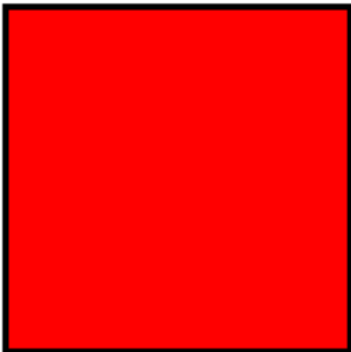
Select the regular polygons from the images below.



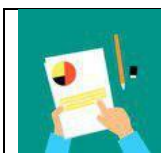
Correct



Correct



Correct



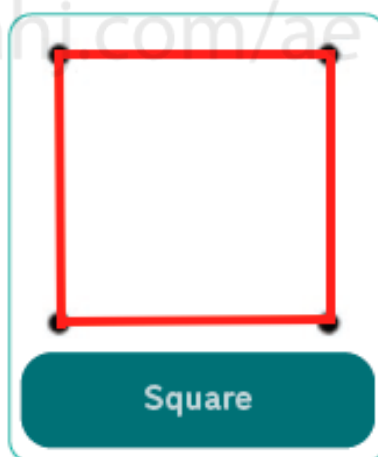
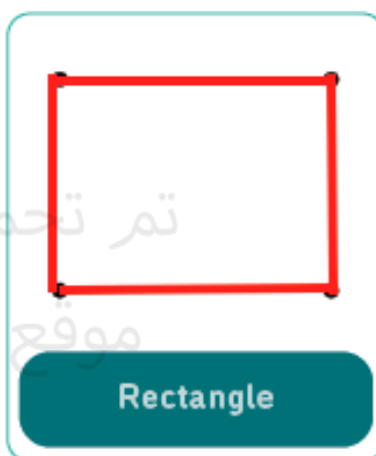
Activity 7

{

Join the dots to draw the polygons. Use a ruler to help.

TA

Students join the dots to make the outlined shape. Students name the polygons.

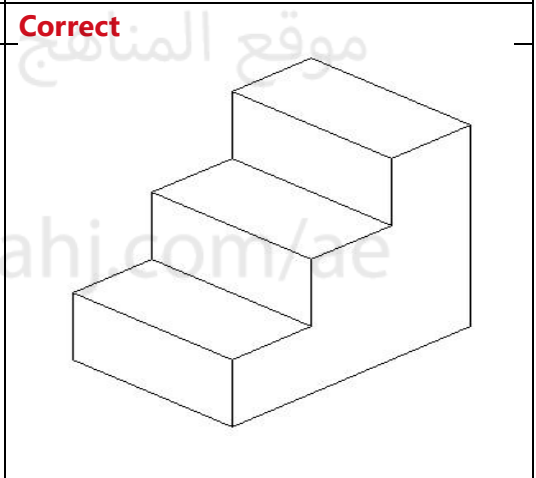
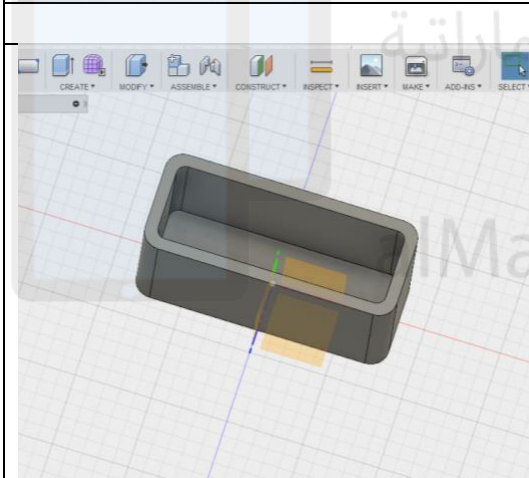
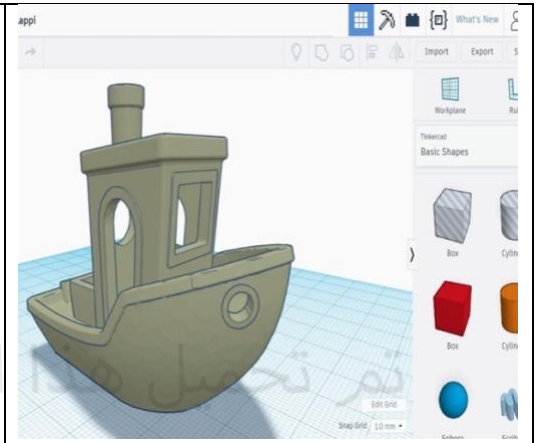
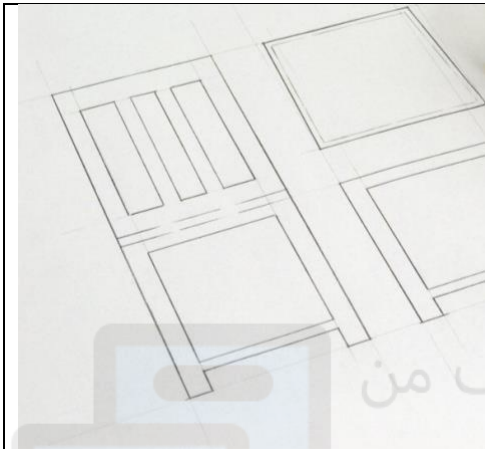




Activity 8

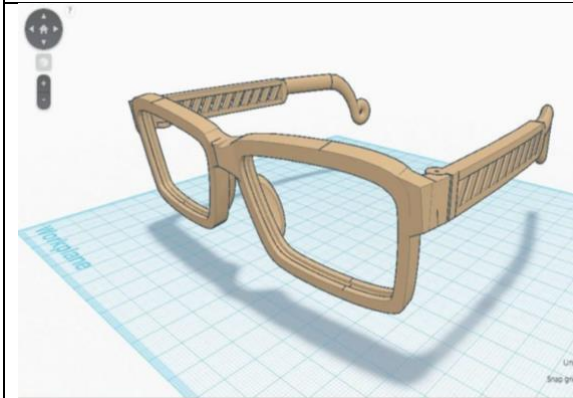
{

Select the images that show CAD.

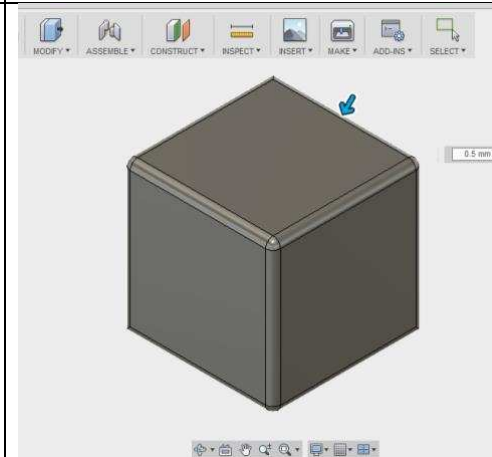


Correct

Correct



Correct



Correct

}



Activity 9

{

TA All answers will be provided in interactive software



Activity 10

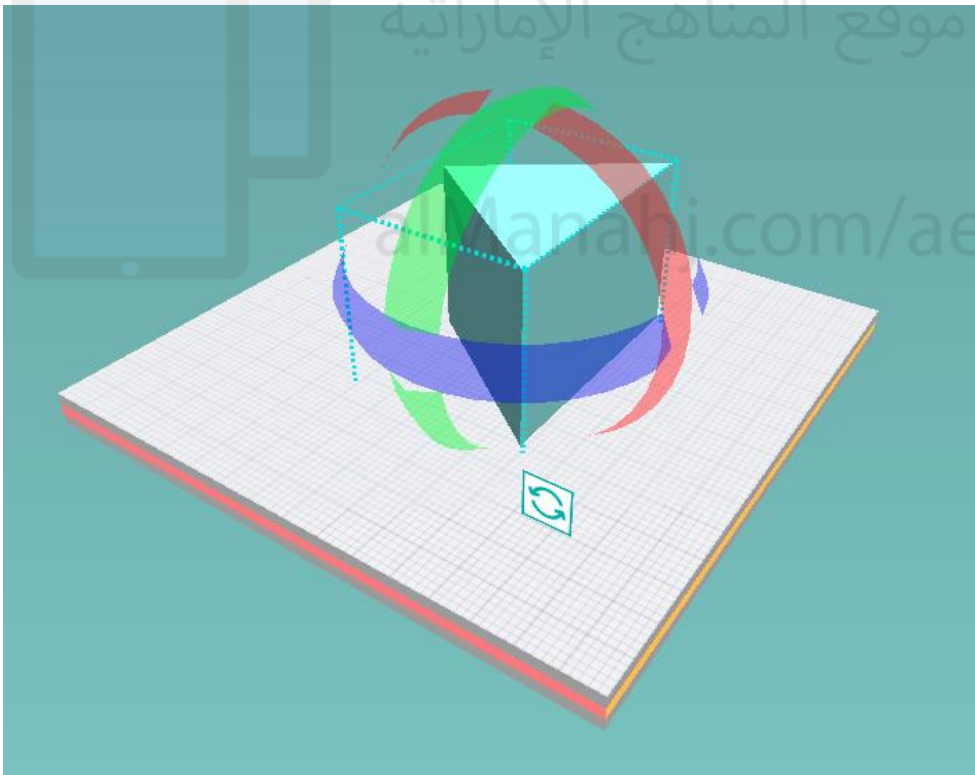
{

Create 3D shapes in CAD based on 2D shapes.

TA

Students will make 3D shapes based on the 2D shapes provided.

Example provided below.





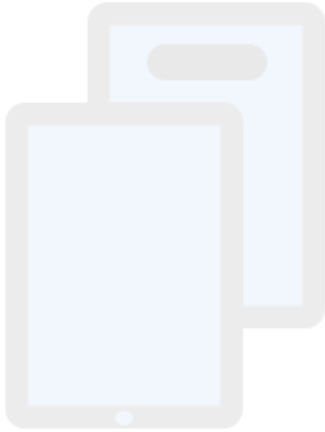
Activity 11

{

True or False

TA

No.	Sentence	True	False
1	Technical Graphics makes drawings using computers.		X
2	CAD is short for Computer Aided Design.	X	
3	All lines in a regular polygon are the same length.	X	
4	CAD is used to make graphics and designs using computer software.	X	



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Unit 3: Data and Patterns





Activity 1

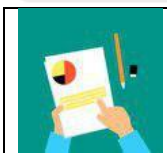
{

Complete the wordsearch to find the keywords.

Data	Patterns	Charts	Predictions
Classify	Spreadsheet	Graphs	

TA



S B B A V E W X P Q V P S
P Y L T E R I O A S I R X
R Z G R A P H S B A M E H
E T P V C R K Q M H I D X
A Z A U M I E T D B O I B
D H T E Y V M C V R C C R
S C T D A T A L Y L B T I
H H E T A H K A M D R I L
E A R H M R Y S E P B O R
E R N P G T G S A L R N O
T T S V B D D I K H L S V
M S U F A S V F U M X N V
T N F S I L X Y V Q L K Q

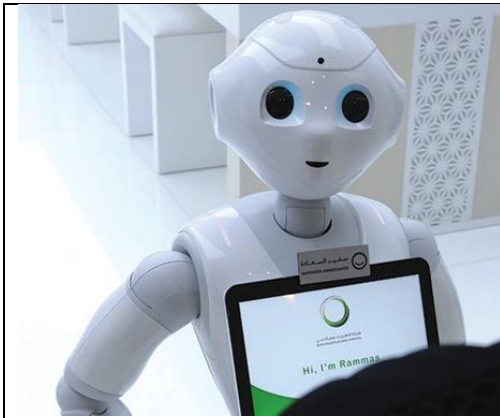


Activity 2

{

Select the images of devices with AI systems.

 <p>Smart Phone Correct</p>	 <p>Typewriter</p>
---	--



DEWA Robot

Correct



Smart Speaker

Correct



Watch



UAE Robocop

Correct



Activity 3

Write different types of data in the boxes below.

Text	United Arab Emirates, Al Ain, Rashid, Maryam
Number	2021, 10, 140000, 3
Dates	22-9-2003, 11-Jul-1998, 06-02-21
Time	15:25, 09:00, 18:45, 4:10pm



Activity 4

{

Name the type of data in each image.



Text



Time

Height	Weight
6.10	80.40
5.80	73.70
5.30	66.90
5.70	50.20
6.50	190.60

Number



Text



Number



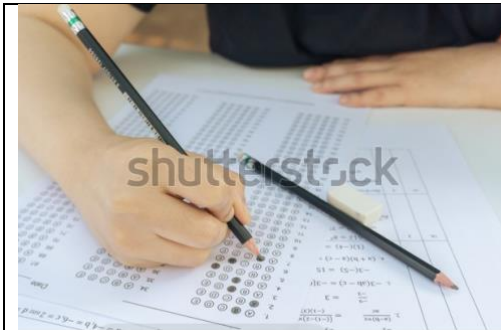
Time



Activity 5

{

Identify the data collection methods.



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Manual



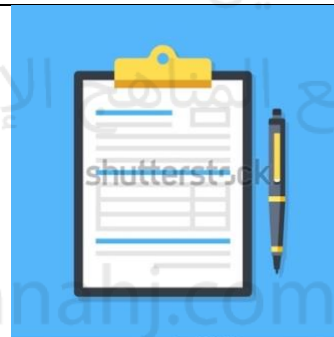
shutterstock.com · 557763919

Electronic



www.shutterstock.com · 1065014663

Electronic



www.shutterstock.com · 577532419

Manual



Activity 6

{

Collect data from your class.

TA

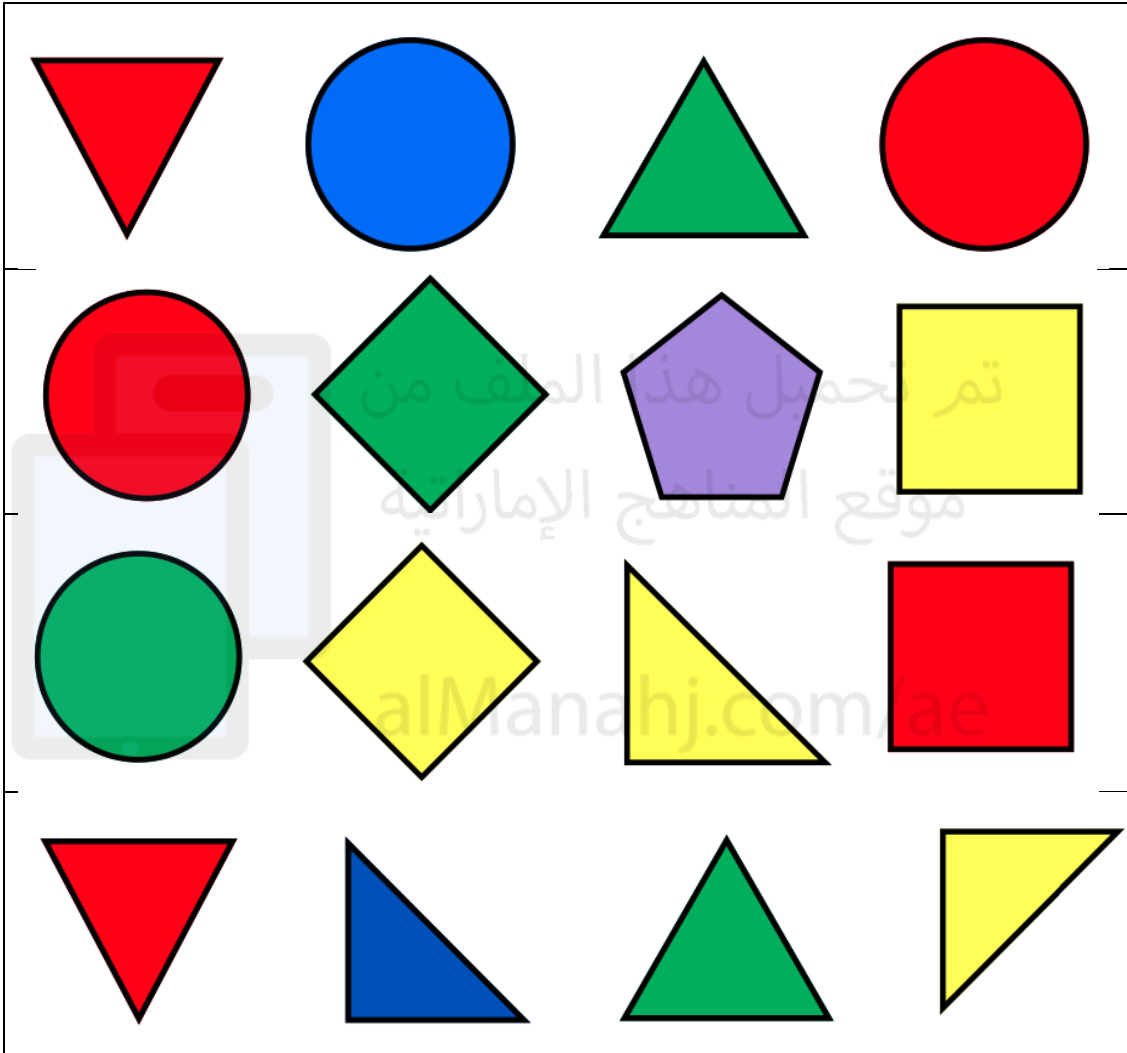
Data will vary for each class.



Activity 7

{

Classify the objects below by colour. Write the number of objects for each colour.



Colour	Number
RED	5
BLUE	2
Yellow	4
Green	4
Purple	1

What other ways can you classify the objects?

Shape












Activity 8

{

Classify the data based on type only.

Is it a fruit or a vegetable?

Count the number of objects in each group based on set conditions.

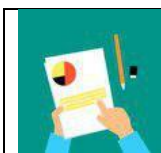
		
Vegetable	Vegetable	Fruit
		
Fruit	Fruit	Vegetable
		
Fruit	Vegetable	Fruit

Fruit	5
Vegetable	4

What other ways can you classify the objects?

Colour

{



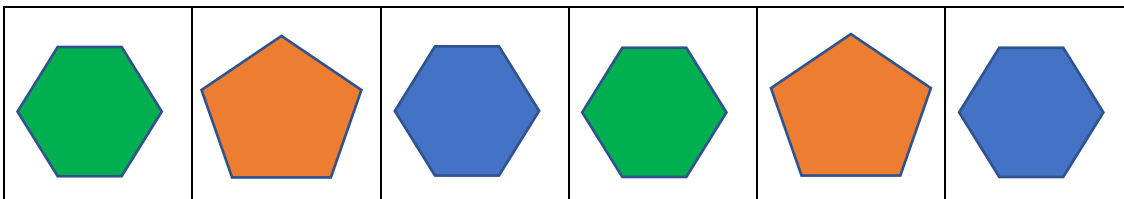
Activity 9

{

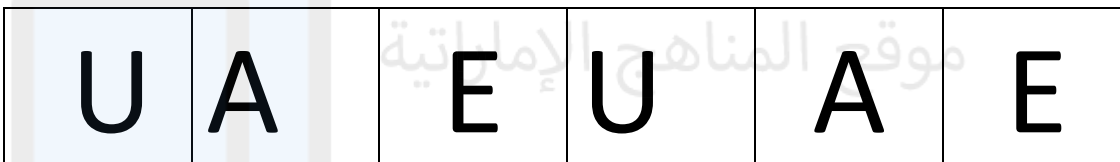
TA

All patterns are complete

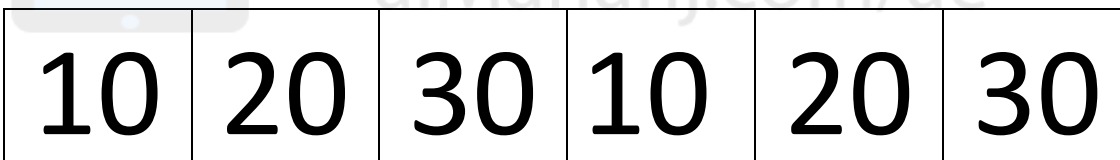
Draw and colour the remaining shapes to complete the pattern.



Write the letter and complete the letter pattern.



Write the numbers and complete the number pattern.



}



Activity 10

Create a bar chart using the birthday month of each student in your class.

Find out the number of students born in each month.

Colour in the chart with the data you collected.

TA Answer data will vary with each class



Activity 11

Cells	Fill Colour
F2 to F12	Red
G2 to G4	Red
G7 to G8	Red
H2 to H12	Red
J2 to J12	Green
K2 to L4	Green
K6 to L8	Green
K11 to L12	Green

What word do the coloured cells show on the Spreadsheet?

UAE



Activity 12

Collecting and inputting data

TA

Answer data will vary for each class

Example below;

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2	Class Name/Number:	5,3											
3													
4		January	February	March	April	May	June	July	August	September	October	November	December
5	Birthdays in Each Month	4	2	6	9	3	0	4	1	2	0	1	2



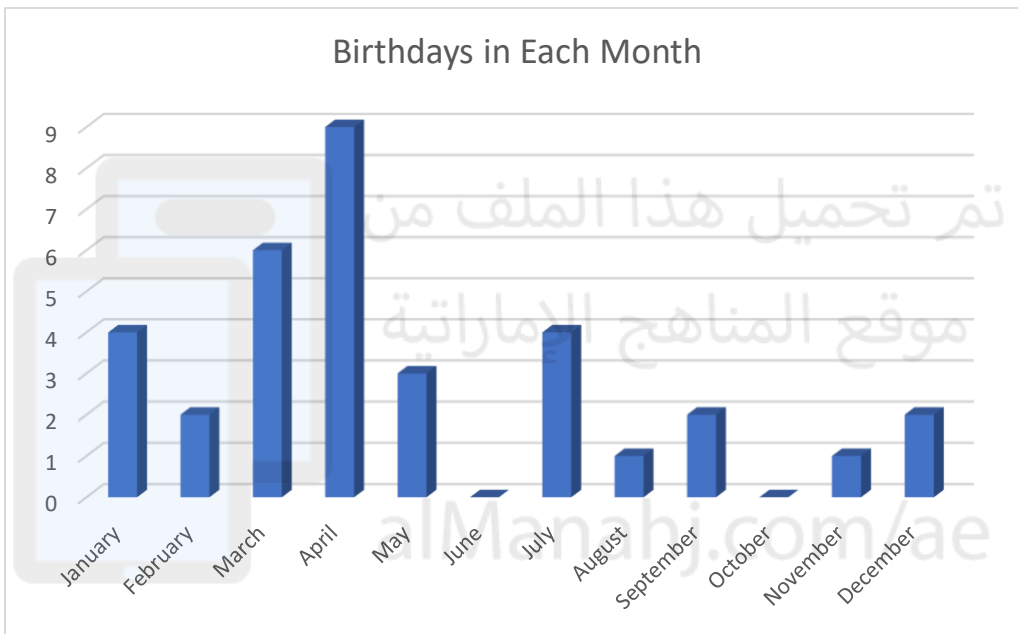
Activity 13

Creating a Bar Chart

TA

Finished charts will vary, it should look similar to the example provided below but data will vary.

Your finished Bar Chart should look something like this;



Challenge

Can you use the chart tools to change the colour of your Bar Chart?

Looking at your chart can you identify which month has the most birthdays?

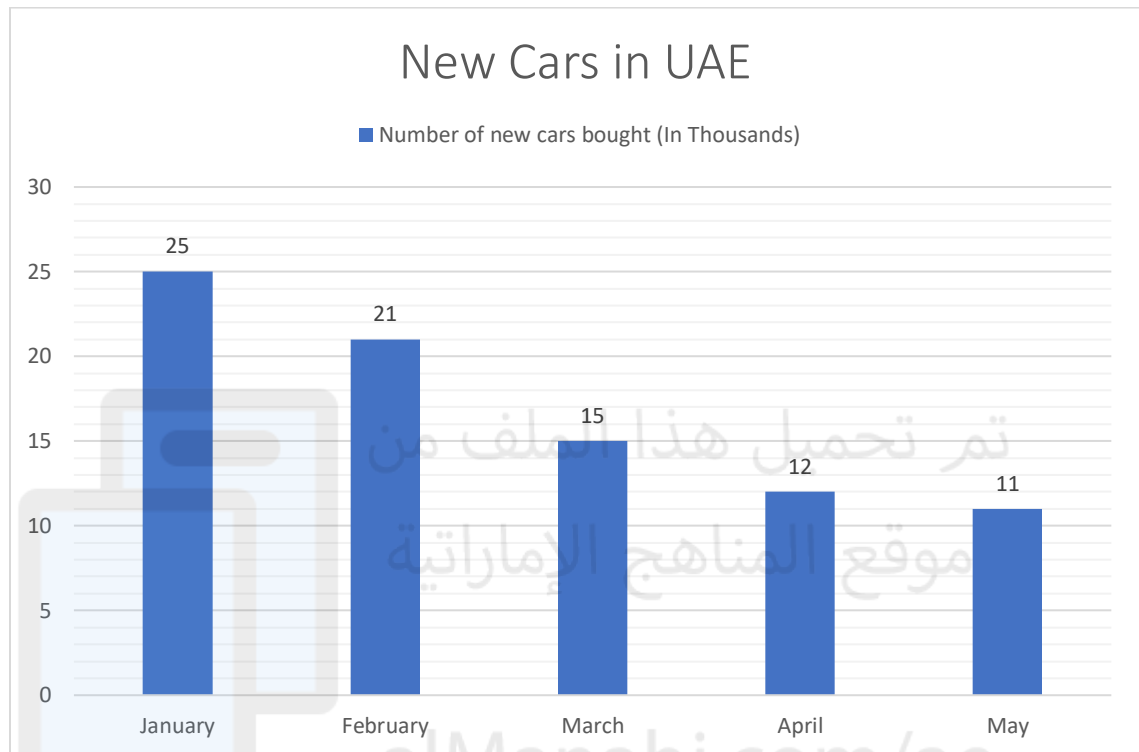
TA

Answer data will vary for each class



Activity 14

Look at the bar chart below. Predict outcomes based on the bar chart.

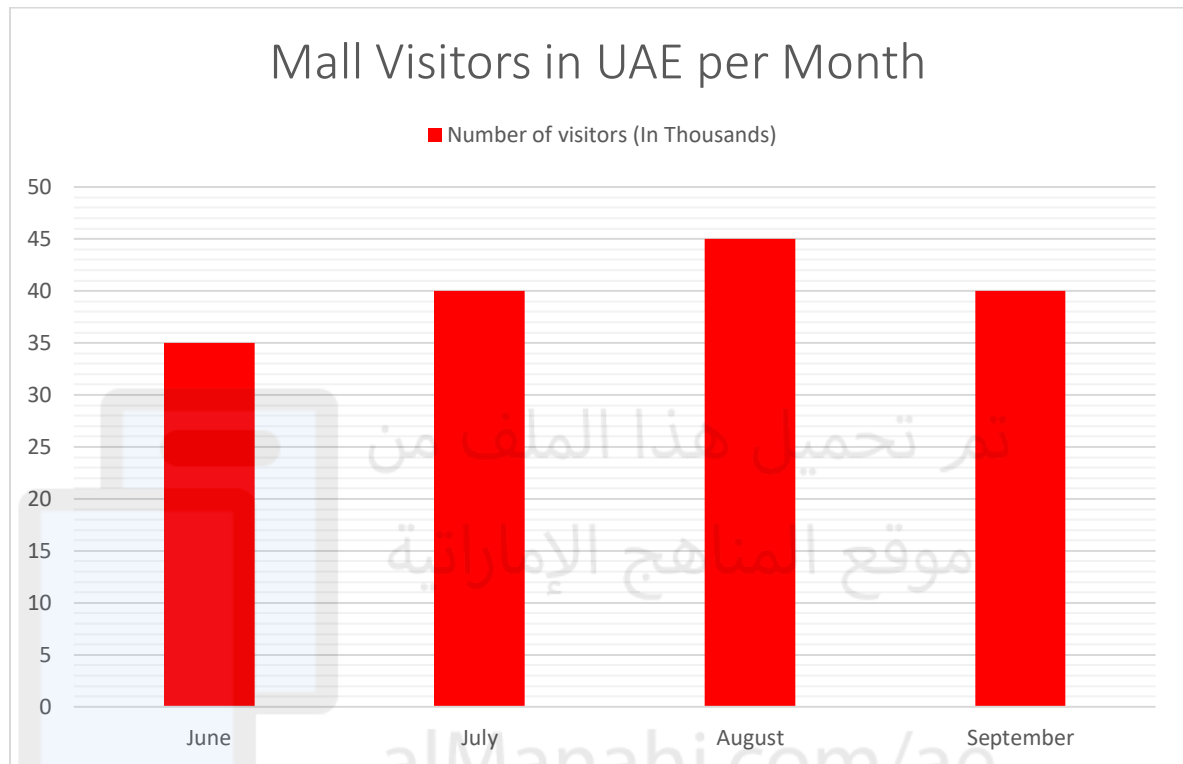


1.	What is the most popular month for new cars? January
2.	What is the least popular month for new cars? May
3.	Predict what will happen in June based of the data provided. Less cars will be bought than in May, It will be lower than May, The amount of cars will continue to drop



Activity 15

Look at the bar chart below. Predict outcomes based on the bar chart.



1.	What is the most popular month for mall visitors? August
2.	What is the least popular month for mall visitors? June
3.	Predict what will happen in October based of the data provided. Less people will visit the Mall, The malls will be emptier in October, The amount of mall visits will drop



Activity 16

{

True or False

TA

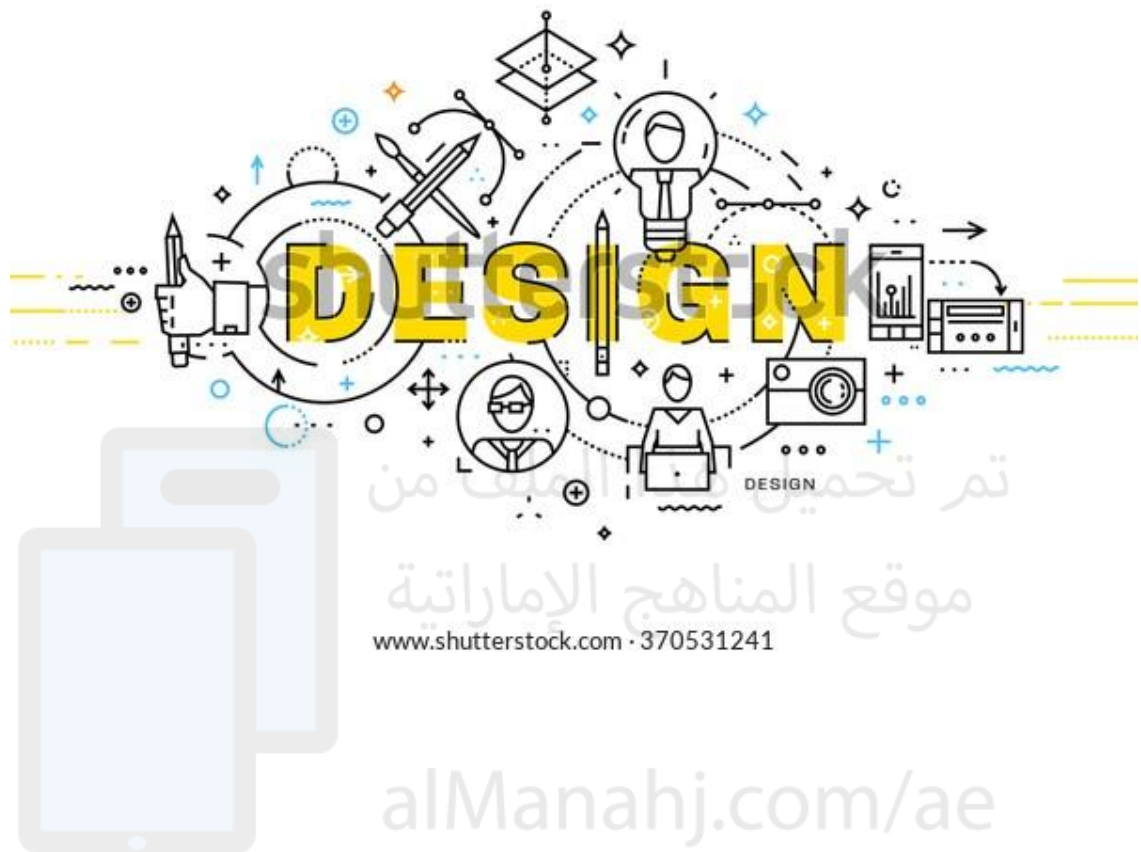
No.	Sentence	True	False
1	Artificial intelligence (AI) is when humans do things like computers.		X
2	AI systems are used in smart devices like smart phones and smart speakers.	X	
3	Patterns are lots of random images that do not link together.		X
4	Data handling is when you use data in a way that is easy for other people to understand.	X	



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Unit 4: Design Process and STREAM Project



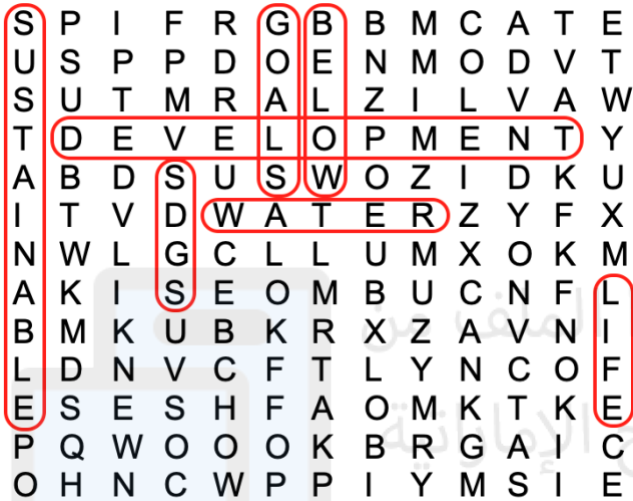


Activity 1

{

Complete the wordsearch to find the keywords.

TA



Activity 2

{

Research **1 Billion Meals** drive in the UAE and find out how many meals were donated during Ramadan 2022.

TA

By the end of Ramadan over 600 million meals were donated in 2022.

NOTE: Various data can be found in relation to this question, the 1 billion meals website is still accepting donations so the total number of meals donated will change. However, once students actively show they have researched and provide an answer they can be awarded marks

Can you think of any more ways to help create a more sustainable world?

Discuss with your teacher and class mates. Make notes of possible ideas.

TA

Open discussion where students need to suggest some ideas that can help create a more sustainable world. Use links to SDGs to help.



Activity 3

{

What types of food can go to waste at home?

Fruits, vegetables, meat, poultry, bread, cereals, etc

The table below shows types of food that are commonly wasted at home.

Calculate the missing data from the table below.

Types of Food	Wasted %
Fruit	30
Vegetables	30
Bread	10
Meat	5
Poultry	5
Dairy	15
Cereals	5
Total	100

1.	What is the highest percentage of food wasted at home? Fruit and Vegetables
2.	What is the lowest percentage of food wasted at home? Meat, Poultry, Cereals
3.	What can you do to reduce the amount of food waste at home? Students can discuss and research ways to help reduce food waste. Three R's (Reduce, reuse, recycle) Buy smaller amounts of food that goes bad quickly (Fruit/Veg) Donate any food that might go to waste (UAE food bank) Freeze food Any other relevant answer

}



Activity 4

TA

You need to use a programming language to make your project.	<input type="checkbox"/>
You need to use a CAD software to make your project.	<input checked="" type="checkbox"/>
You need to include underwater animals in you project.	<input checked="" type="checkbox"/>
You need to include trees in your project.	<input type="checkbox"/>
You need to include waste in your project.	<input checked="" type="checkbox"/>

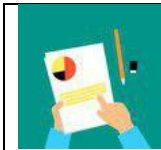


Activity 5

Think about the following questions.

Research any information you need.

1	What CAD software will you use? Makers Empire
2	What underwater animals can you include? Any underwater animals are accepted Fish, starfish, jellyfish etc are available to collect or make in Makers Empire
3	What types of plants grow underwater? Any underwater plants are accepted Seaweed, water Lilly, java fern, red rubin, etc
4	What types of waste do you find underwater? All waste is accepted, common waste is plastic bottles, cans, plastic bags, metal
5	How can you make an area of water in CAD software? You can make a blue area in the workspace. You can use Shaper to make the area.



Activity 6

Make a sketch of what you want your underwater world to look like.

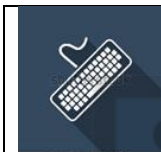
TA

Student sketches will vary.

Anything that resembles an underwater world is acceptable.

All designs are accepted.

Encourage the use of colour in sketches.

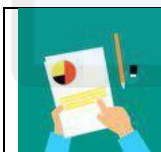


Activity 7

Make a model of your project from your design sketches using CAD software.

TA

A model of an underwater world using Makers Empire. See example provided in 'Ask' section of activity book.



Activity 8

TA

Students test their work and answer the questions accurately

{

1	Does your project have underwater animals?	Yes
2	Does your project have underwater plants?	Yes
3	Does your project have waste?	Yes
4	Can you remove the waste from the water?	Yes
5	Can a classmate remove the waste from the water?	Yes

}



Activity 9

TA

All answers will vary based on individual student evaluation