

Week beginning: 06/07/20

Year 6

# Weekly Creative Home Learning



Alexandra  
Primary School  
Aspire, Perform, Succeed

Hello Year 6 legends,

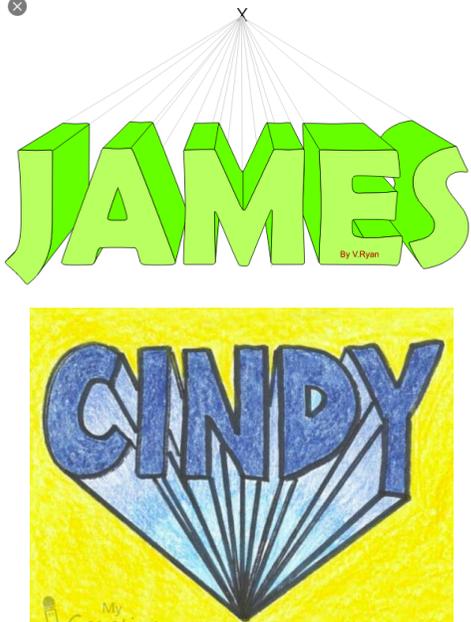
Every **Monday** you will see a new chart of some activities that you can do to keep yourself busy and keep your brain active! Please remember to balance your online home learning with activities that promote your well being too! Just like you would at school, make sure you take breaks every so often.

Well done for all of your hard work every week – you are all doing so well and we are very proud of you. Remember to send some work into [apsallstars@alexandra.hounslow.sch.uk](mailto:apsallstars@alexandra.hounslow.sch.uk) so that we can see what you have been doing.

**We miss you!**

Mrs Carrasco, Miss Carberry and Miss King

Reading	Writing	Maths	PE
<p><b>Read different text genres:</b> a biography, classic novel, adventure story, poems, newspaper, cultural story.</p> <p><b>Audible:</b> In the wake of the novel coronavirus pandemic, Audible is offering hundreds of titles children ages 0-18 completely free of charge. These are available in different languages.</p> <p><b>Reading Plus, Doodle English, Pixl Unlock:</b> continue logging in and completing your usual activities.</p> <p><b>Vocabulary Ninja:</b> take a look at this week's words at the bottom of this file. Find the definitions of these words, try to use them in a sentence and then create your own word search for a family member.</p>	<p>As we begin to wrap up the year, it is time to reflect on your Primary School journey; in particular, your final year. This week, you will make <b>notes</b> in regards to the following questions:</p> <ol style="list-style-type: none"><li>1. What was your most memorable year of Primary school and why?</li><li>2. What did you enjoy learning about the most in Year 6 and why?</li><li>3. What were some of your biggest challenges throughout Primary School? How did you persevere and succeed?</li><li>4. What did you learn from these challenges?</li><li>5. What advice would you give the students who will be in your classroom next year?</li><li>6. What is something you accomplished this year that you are proud of?</li><li>7. Where is your favourite place in the classroom or school and why?</li><li>8. What do you hope to achieve in the next year of your school journey?</li><li>9. What do you aspire to do in your future?</li></ol>	<p><b>Online learning:</b> Doodle Maths, Mathletics, MyMaths, Times Table Rockstars. Links are available on the website.</p> <p><b>White Rose Maths:</b> follow the link below and complete the learning under Summer Term, Week 11.</p> <p><a href="https://whiterosemaths.com/homelearning/year-6/">https://whiterosemaths.com/homelearning/year-6/</a></p> <p>There are daily worksheets for you to complete on the BBC Bitesize website that link to the White Rose lessons.</p>	<ul style="list-style-type: none"><li>• Joe Wicks PE sessions online – Monday, Wednesday and Saturday <a href="https://www.thebodycoach.com/blog/p-e-with-joe-1254.html">https://www.thebodycoach.com/blog/p-e-with-joe-1254.html</a> You can look back on past workouts if you are in a daily routine.</li><li>• Cosmic Kids Yoga and Mindfulness (YouTube)</li></ul>

Science	Geography	Art																		
<p><u>Exercise Investigation:</u> Watch the video: <a href="https://www.bbc.co.uk/bitesize/clips/z274d2p">https://www.bbc.co.uk/bitesize/clips/z274d2p</a></p> <p>There are two types of exercise – <b>muscle strengthening</b> (such as swinging or handstands) and <b>bone strengthening</b> (such as swimming, walking or running).</p> <p>The definition of exercise is activity that requires effort, raises your heart rate and works your muscles. Out of these three things, the only thing that can be measured is our heart rate. The way we do this is to measure our pulse.</p> <p>To measure your pulse, gently place two fingers on your wrist. You may have to move your fingers around until you feel a beat. You will need to count how many beats you feel in one minute.</p>  <p>You will conduct an investigation about the impact of exercise on your heart. You will choose two different types of exercises to do a comparative test.</p> <p><b>Use the instructions attached and begin planning!</b></p>	<p>Think back to your Extreme Earth learning in Year 5! Before you watch the video below, write down your thoughts about how mountains are formed. <a href="https://www.youtube.com/watch?v=Fd_XqYE2BWY">https://www.youtube.com/watch?v=Fd_XqYE2BWY</a></p> <p><u>How is a volcano different to a mountain?</u> A volcano is a landform (usually a mountain) where molten rock erupts through the surface of the planet. In simple terms, a volcano is a mountain that opens downwards to a pool of molten rock (magma) below the surface of the Earth. It is a hole in the Earth from which molten rock and gas erupt.</p> <p>Watch the video to see some of the mountain ranges around the world: <a href="https://www.bbc.co.uk/bitesize/clips/z27tfg8">https://www.bbc.co.uk/bitesize/clips/z27tfg8</a></p> <p><b>Use an atlas or Google maps to find the various mountain ranges on the world map attached.</b></p> <table border="0"> <tr> <td>- The Andes</td> <td>- Ural</td> </tr> <tr> <td>- Appalachian</td> <td>- Rocky</td> </tr> <tr> <td>- Atlas</td> <td>- Pyrenees</td> </tr> <tr> <td>- Kjolen</td> <td>- Alps</td> </tr> <tr> <td>- Tien Shan</td> <td>- Zagros</td> </tr> <tr> <td>- Great Dividing Range</td> <td>- Carpathian</td> </tr> <tr> <td>- Himalayas</td> <td>- Ethiopian Highlands</td> </tr> <tr> <td>- Caucasus</td> <td></td> </tr> <tr> <td>- Drakensberg</td> <td></td> </tr> </table>	- The Andes	- Ural	- Appalachian	- Rocky	- Atlas	- Pyrenees	- Kjolen	- Alps	- Tien Shan	- Zagros	- Great Dividing Range	- Carpathian	- Himalayas	- Ethiopian Highlands	- Caucasus		- Drakensberg		<p><u>One-point Perspective Drawing:</u> Using your skills and knowledge from the past 2 weeks about one-point perspective drawing, you're going to use your own name as your focus.</p>  <p>Just like drawing the 3D shapes (<a href="https://www.youtube.com/watch?v=79jB3Hb7cb0">https://www.youtube.com/watch?v=79jB3Hb7cb0</a>), remember to draw the block letters first and then find your point to connect the letters to.</p> <p>Remember to send your artwork to <a href="mailto:apsallstars@alexandra.hounslow.sch.uk">apsallstars@alexandra.hounslow.sch.uk</a></p>
- The Andes	- Ural																			
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# Weekly Creative Home Learning



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PSHE	Spanish	Music	DT
<p>As you know we are currently a Silver Rights Respecting school. We would like you to know your rights even more than you do so already. Each week there will be an Article of the Week with your Home Learning Grid, where you can choose some activities to do to show your understanding of the United Nations Convention on the Rights of the Child.</p> <p>This week our focus is Article 28.</p> <p>Here you will find all of the Articles for you to remind yourselves again: <a href="#">Rights of the Child</a>.</p> <p>You do not have to do all of the activities but we would like you to select one or more to complete and show us your fabulous work on APS Allstars so it can be put in pride of place in the gallery!</p> <p><b>See the attached document on the Year 6 Learning page on the website.</b></p>	<p>Log in to Language Angels and complete the tasks that have been assigned to you.</p> <p>Remember to finish each task fully.</p>	<p>Last week, you chose a piece of musical history to research and create a fact file. This week choose a different period of time and create another fact file.</p> <ul style="list-style-type: none"> <li>- Renaissance 1400-1600</li> <li>- Baroque 1600-1750</li> <li>- Classical 1750-1820</li> <li>- Romantic 1820-1900</li> <li>- Modern 1890-1960</li> <li>- Contemporary 1960-present</li> </ul>	<p>N/A</p>

RE	Spelling	Grammar	Wellbeing
<p>What is the relationship between moral choices and religion? Consider the moral dilemma: <b>You see your best friend bullying someone</b></p> <p>1) Talk about and consider all the possibilities. 2) Establish the facts and consider the evidence. 3) What would you do and why? 4) What impact would that have?</p> <p>Does your religion affect your choices? How so?</p>	<p>Look at this week's Vocabulary Ninja words. Ask an adult to test you on the spelling of these words.</p> <p>Think of some ideas and tricks to help you spell these words.</p>	<p><u>Relative clauses:</u> Do you remember how to identify a relative clause? It is extra information added to a sentence, beginning with a relative pronoun: <i>which, who, that, whom, where and when</i>.</p> <p><u>For example:</u> <b>The teacher, who was very kind, smiled at her students.</b> <b>Australia is a very large country, which has dangerous spiders.</b></p> <p>Using the worksheet attached, add some relative clauses to make the simple sentences more interesting.</p>	<p>Look at the wellbeing calendar attached and try to follow it each day. Remember to check in with yourself every day and get your family involved too!</p> <p>Make sure you are getting enough sleep, drinking plenty of water and eating healthy food. Ensure you are taking time away from screens and getting some exercise as well.</p> <p>Remember to talk to your family and friends about how you are feeling at this time.</p>



## Science: Exercise Investigation

### Let's plan!

**Question:** *What are you going to investigate?*

*For example: Which exercise raises your heart rate more – running on the spot for a minute or doing 100 star jumps?*

**Prediction:** *What do you predict the outcome will be?*

**Independent variable:** *What are you going to change/compare?*

*The exercise*

**Dependent variable:** *What are you going to measure?*

*Your heart rate, by measuring your pulse*

**Controlled variables:** *What will stay the same?*

**Results table:**

**bpm = beats per minute**

		Day 1	Day 2	Day 3	Day 4
Exercise 1:	Resting heart rate	_____ bpm	_____ bpm	_____ bpm	_____ bpm
	After exercise	_____ bpm	_____ bpm	_____ bpm	_____ bpm
Exercise 2:	Resting heart rate	_____ bpm	_____ bpm	_____ bpm	_____ bpm
	After exercise	_____ bpm	_____ bpm	_____ bpm	_____ bpm

# Weekly Creative Home Learning



Each day, you will complete your exercises and record your heart beat each time by measuring your pulse for a minute after each exercise.

Remember to record your resting heart rate first (before you do any exercise) and have a break before beginning the second exercise. **All these results will go on your results table.**

Then... **Let's get ready to exercise!**

		Day 1	Day 2	Day 3	Day 4
<u>Exercise 1:</u>	Resting heart rate	_____bpm	_____bpm	_____bpm	_____bpm
	After exercise	_____bpm	_____bpm	_____bpm	_____bpm
<u>Exercise 2:</u>	Resting heart rate	_____bpm	_____bpm	_____bpm	_____bpm
	After exercise	_____bpm	_____bpm	_____bpm	_____bpm

## Geography: Mountain Ranges around the World

**Activity:**

Your challenge is use an atlas to find these famous world mountain ranges.

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Year 6

## Grammar: Relative clause worksheet

### Task:

- Re-write each sentence adding in an appropriate embedded clause.
- Use commas to signal the start and end of the embedded clause.

1. The boy could play the piano.

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2. The beach was hotter than ever.

---

3. The ball flew through the air.

---

4. The music gave me a headache.

---

5. The old lady waited for a taxi.

---

6. The bus went down the street.

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Spelling: Vocab Ninja

# Grasshopper

**before**

**after**

**later**

**soon**

**early**

# Shinobi

**dwell**

**ignore**

**seem**

**endure**

**carve**

## Vocabulary Ninja

*'Words unlock the doors to a world of understanding'*



## Well being: Jump Back July Calendar




# RESILIENCE CALENDAR: JUMP BACK JULY 2020




SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
 <p><b>We can't control what happens to us, but we can choose how we respond</b></p>			<p><b>1</b> Be willing to ask for help when you need it today (and always)</p>	<p><b>2</b> Make a list of things that you're looking forward to</p>	<p><b>3</b> Adopt a growth mindset. Change "I can't" into "I can't... yet"</p>	<p><b>4</b> Find an action you can take to overcome a problem or worry</p>
<p><b>5</b> Avoid saying "must" or "should" to yourself today</p>	<p><b>6</b> Put a problem in perspective and see the bigger picture</p>	<p><b>7</b> Shift your mood by doing something you really enjoy</p>	<p><b>8</b> Get the basics right: eat well, exercise and go to bed on time</p>	<p><b>9</b> Help someone in need and notice how that gives you a boost too</p>	<p><b>10</b> Don't be so hard on yourself. It's ok not to be ok</p>	<p><b>11</b> Reach out to someone you trust and share your feelings with them</p>
<p><b>12</b> When things go wrong, be compassionate to yourself</p>	<p><b>13</b> Challenge negative thoughts. Find an alternative interpretation</p>	<p><b>14</b> Set yourself an achievable goal and make it happen</p>	<p><b>15</b> Go for a walk to clear your head when you feel overwhelmed</p>	<p><b>16</b> When things get tough, say to yourself "this too shall pass"</p>	<p><b>17</b> Write your worries down and save them for a specific 'worry time'</p>	<p><b>18</b> Let go of the small stuff and focus on the things that matter</p>
<p><b>19</b> Notice something positive to come out of a difficult situation</p>	<p><b>20</b> Ask yourself: What's the best thing that can happen?</p>	<p><b>21</b> If you can't change it, change the way you think about it</p>	<p><b>22</b> Make a list of 3 things that you can feel hopeful about</p>	<p><b>23</b> Remember that all feelings and situations pass in time</p>	<p><b>24</b> Choose to see something good about what has gone wrong</p>	<p><b>25</b> Notice when you are feeling judgemental and be kind instead</p>
<p><b>26</b> Get back in touch with a supportive friend and have a chat</p>	<p><b>27</b> Write down 3 things you're grateful for (even if today was hard)</p>	<p><b>28</b> Catch yourself over-reacting and take a deep breath</p>	<p><b>29</b> Think about what you can learn from a recent challenge</p>	<p><b>30</b> Ask for help from a loved one or colleague. Be specific</p>	<p><b>31</b> Remember that you are not alone. We all struggle at times</p>	

ACTION FOR HAPPINESS







[actionforhappiness.org](http://actionforhappiness.org)

**Keep Calm · Stay Wise · Be Kind**

Daily actions to look after ourselves and each other as we face this global crisis together

### Year 6

#### Summer Term Week 11

(w/c 6th July)

##### Lesson 1

Vertically opposite angles

<https://vimeo.com/434627555>

##### Lesson 2

Angles in a triangle - missing angles

<https://vimeo.com/434627646>

##### Lesson 3

Angles in special quadrilaterals

<https://vimeo.com/434627734>

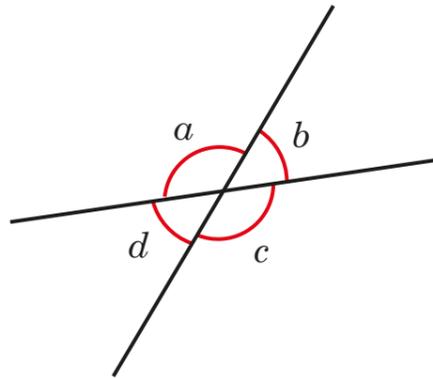
##### Lesson 4

Angles in regular polygons

<https://vimeo.com/434627811>

# Vertically opposite angles

1 The diagram shows four angles formed by two straight lines.



a) Measure the sizes of the angles.

$a =$    $b =$    $c =$    $d =$

b) What is the total of angles  $a$  and  $b$ ?

Explain why.

\_\_\_\_\_

Do any other pairs of angles have this same total?

c) Angles  $a$  and  $c$  are vertically opposite angles.

What do you notice about the sizes of angles  $a$  and  $c$ ?

\_\_\_\_\_

d) Angles  $b$  and  $d$  are also vertically opposite angles.

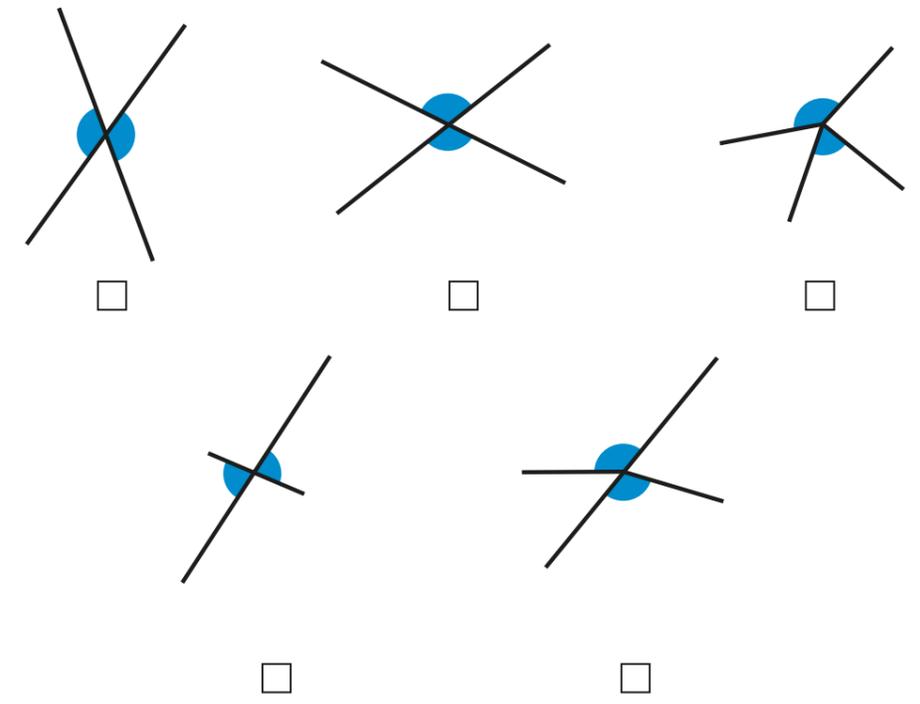
What do you notice about the sizes of angles  $b$  and  $d$ ?

\_\_\_\_\_

e) Complete the sentence.

Vertically opposite angles \_\_\_\_\_

2 Tick the pairs of angles that are vertically opposite.



Compare answers with a partner.

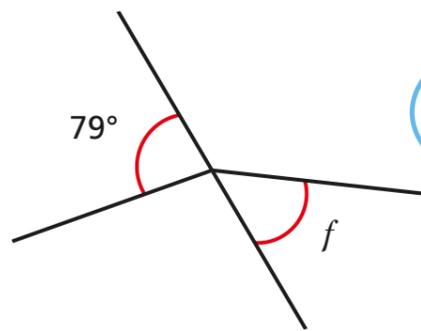
3 Work out the sizes of the unknown angles.

Give reasons for your answers.

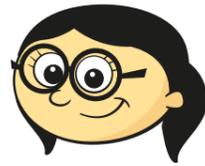
a)  $y =$   because \_\_\_\_\_  
\_\_\_\_\_

b)  $z =$   because \_\_\_\_\_  
\_\_\_\_\_

- 4 Annie is working out the size of angle  $f$ .



Angle  $f$  is equal to  $79^\circ$  because vertically opposite angles are equal.



Do you agree with Annie? \_\_\_\_\_

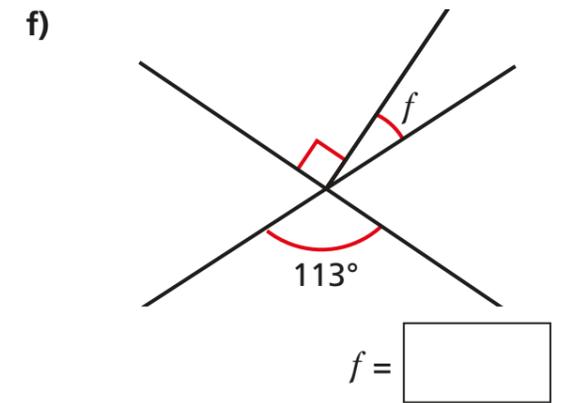
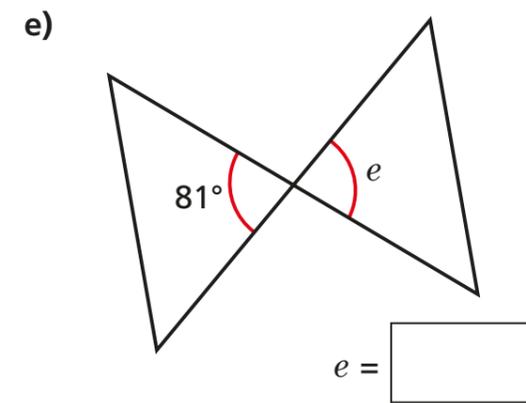
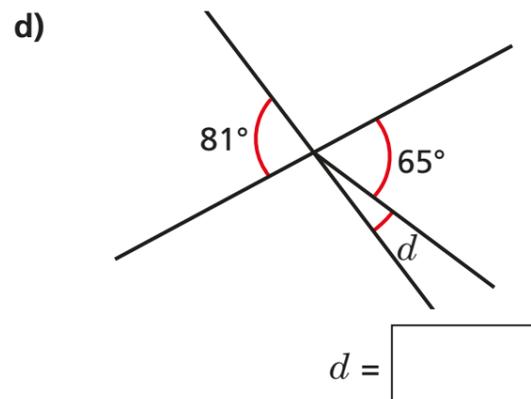
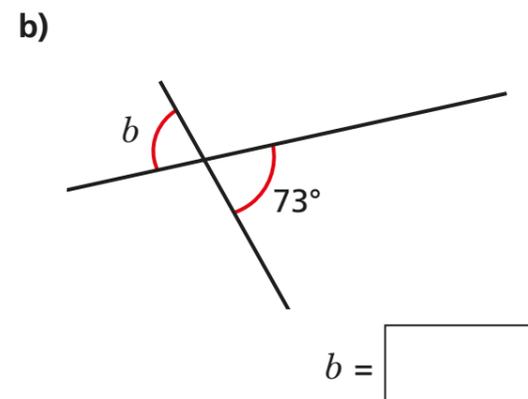
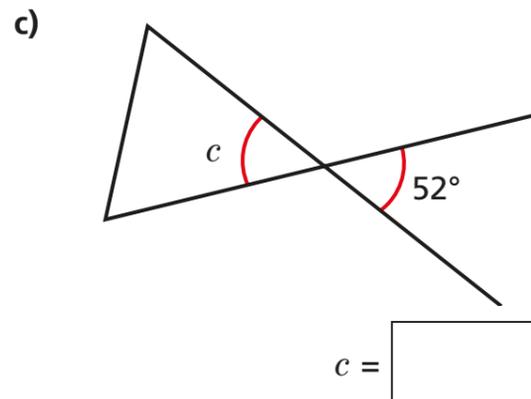
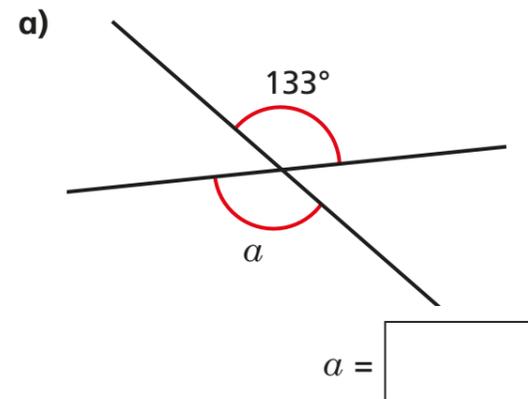
Explain your answer.

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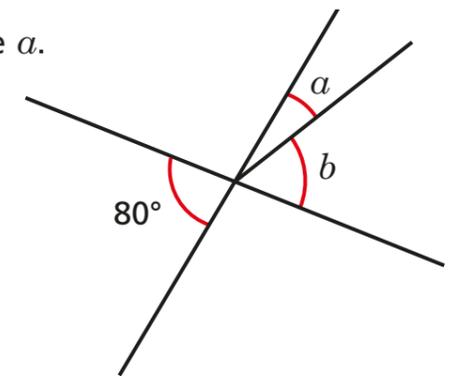
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- 5 Work out the unknown angles.



Talk about your reasons with a partner.

- 6 Angle  $b$  is three times the size of angle  $a$ .

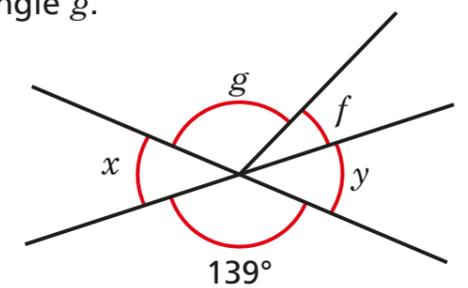


Work out the sizes of angles  $a$  and  $b$ .

$a = \square$        $b = \square$

- 7 Angle  $f$  is one quarter of the size of angle  $g$ .

Angle  $f$  is  $28^\circ$ .



Are angles  $x$  and  $y$  vertically opposite? \_\_\_\_\_

Explain your answer.

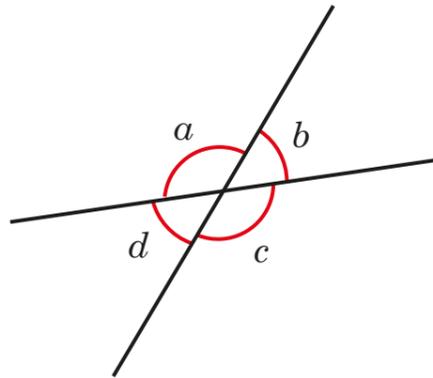
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# Vertically opposite angles

1 The diagram shows four angles formed by two straight lines.



a) Measure the sizes of the angles.

$a = 130^\circ$     $b = 50^\circ$     $c = 130^\circ$     $d = 50^\circ$

b) What is the total of angles  $a$  and  $b$ ?

$180^\circ$

Explain why.

Adjacent angles on a straight line sum to  $180^\circ$

Do any other pairs of angles have this same total?

c) Angles  $a$  and  $c$  are vertically opposite angles.

What do you notice about the sizes of angles  $a$  and  $c$ ?

They are equal.

d) Angles  $b$  and  $d$  are also vertically opposite angles.

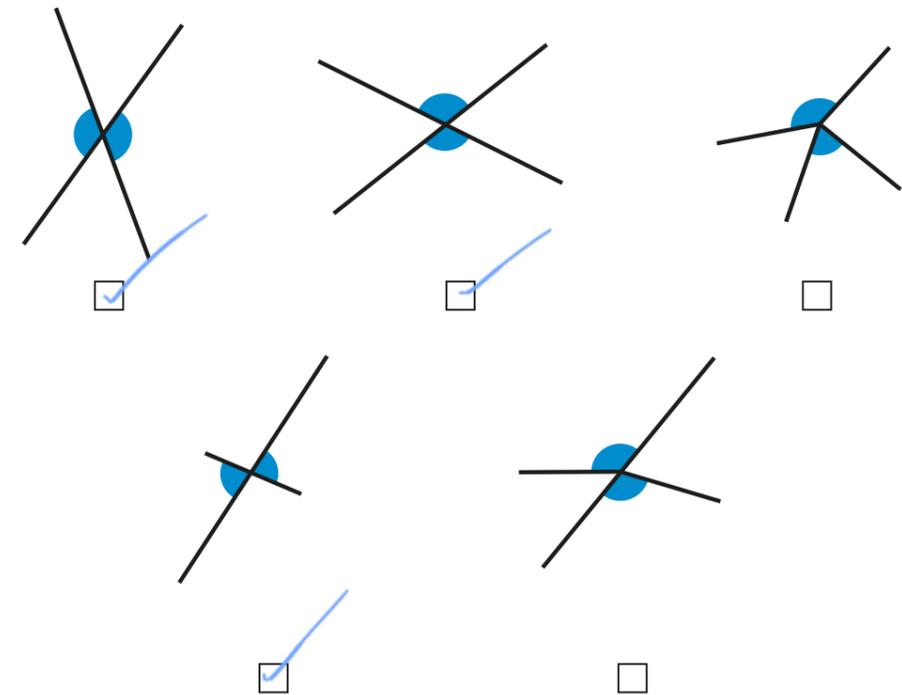
What do you notice about the sizes of angles  $b$  and  $d$ ?

They are equal.

e) Complete the sentence.

Vertically opposite angles are equal.

2 Tick the pairs of angles that are vertically opposite.

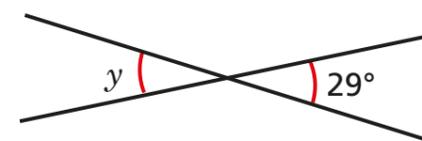


Compare answers with a partner.

3 Work out the sizes of the unknown angles.

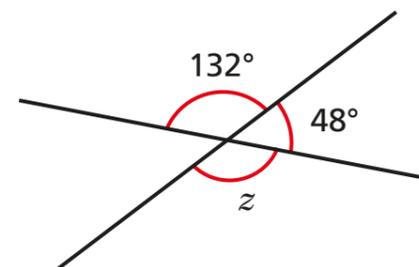
Give reasons for your answers.

a)



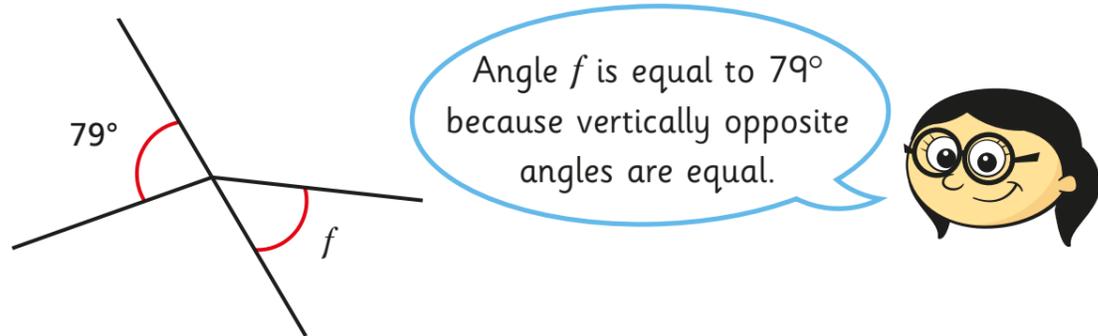
$y = 29^\circ$  because vertically opposite angles are equal.

b)



$z = 132^\circ$  because vertically opposite angles are equal.

- 4 Annie is working out the size of angle  $f$ .

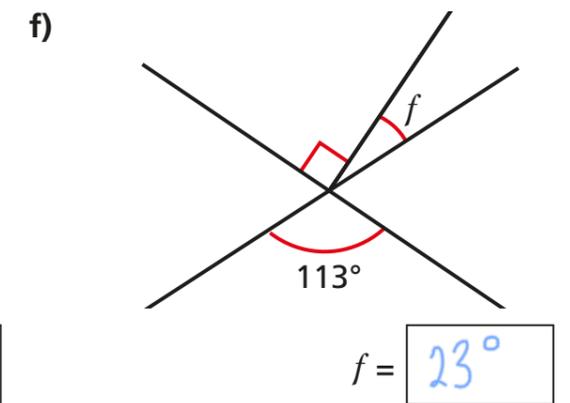
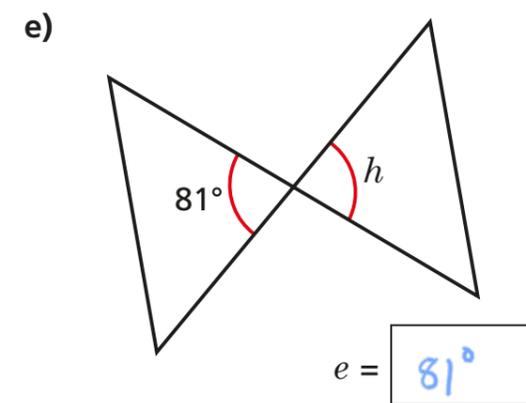
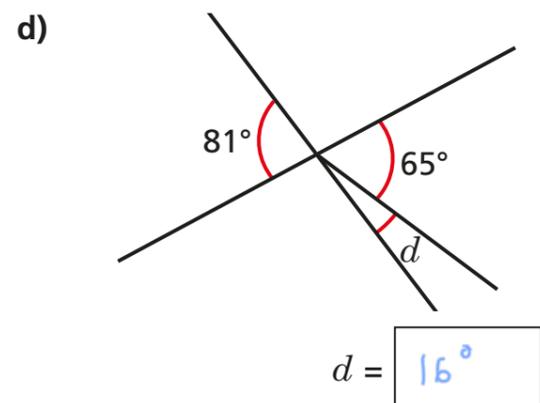
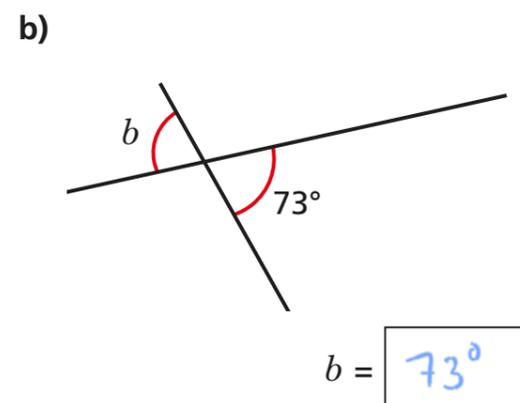
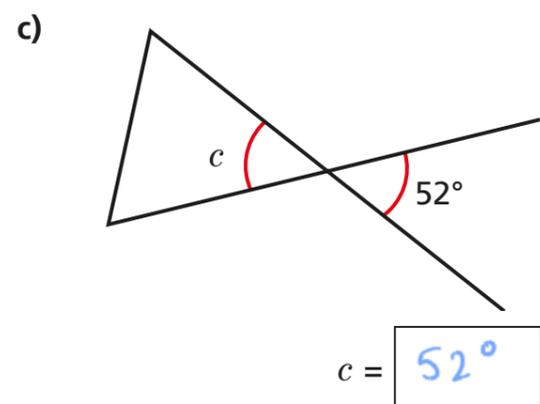
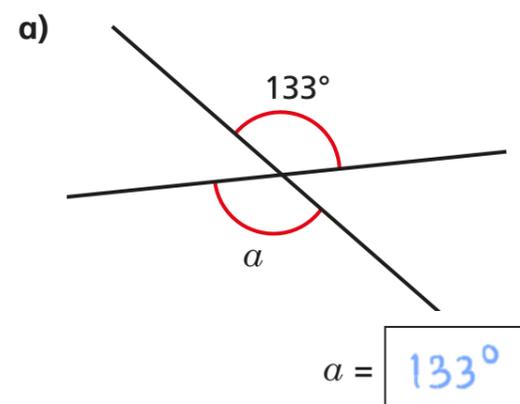


Do you agree with Annie? No

Explain your answer.

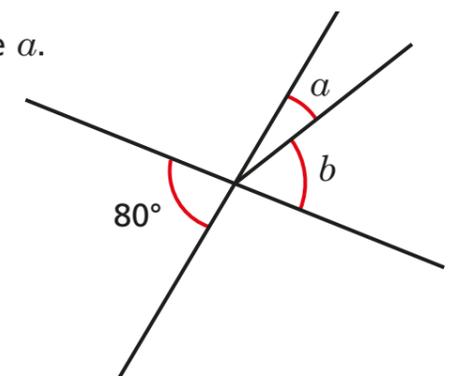
The diagram doesn't show two straight lines crossing so the angles are not vertically opposite.

- 5 Work out the unknown angles.



Talk about your reasons with a partner.

- 6 Angle  $b$  is three times the size of angle  $a$ .

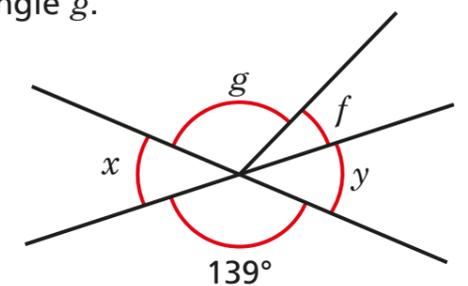


Work out the sizes of angles  $a$  and  $b$ .

$a = \boxed{20^\circ}$        $b = \boxed{60^\circ}$

- 7 Angle  $f$  is one quarter of the size of angle  $g$ .

Angle  $f$  is  $28^\circ$ .



Are angles  $x$  and  $y$  vertically opposite? No

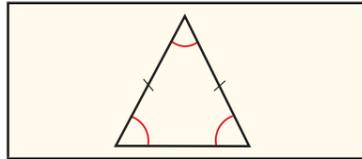
Explain your answer.

$28 \times 4 = 112$  so  $g = 112^\circ$   
 $112 + 28 = 140$

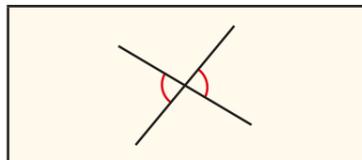
$139 \neq 140$  therefore the diagram does not show vertically opposite angles.

# Angles in a triangle – missing angles

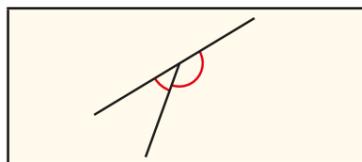
1 Match each diagram to the correct rule.



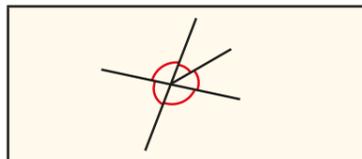
Angles on a straight line sum to  $180^\circ$



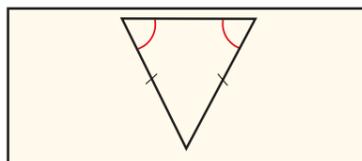
Angles around a point sum to  $360^\circ$



Angles in a triangle sum to  $180^\circ$



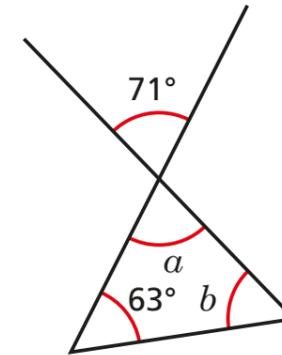
In an isosceles triangle, two angles are equal



Vertically opposite angles are equal

2 Work out the sizes of the unknown angles.  
Give reasons for each stage of your working.

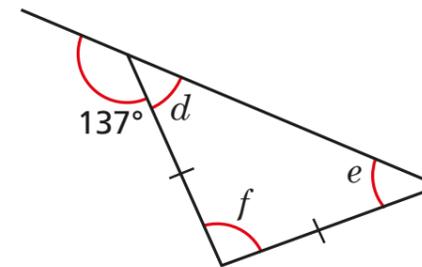
a)



$a = \square$  because \_\_\_\_\_

$b = \square$  because \_\_\_\_\_

b)

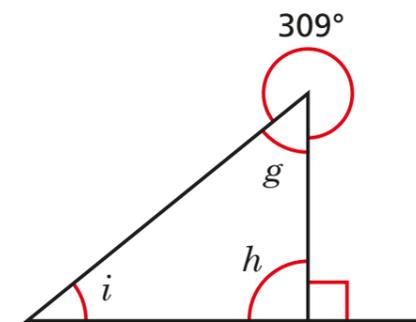


$d = \square$  because \_\_\_\_\_

$e = \square$  because \_\_\_\_\_

$f = \square$  because \_\_\_\_\_

c)

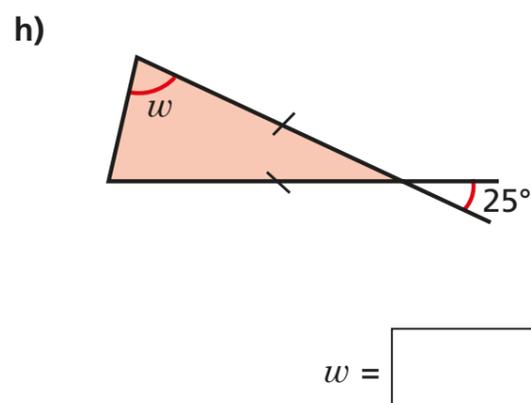
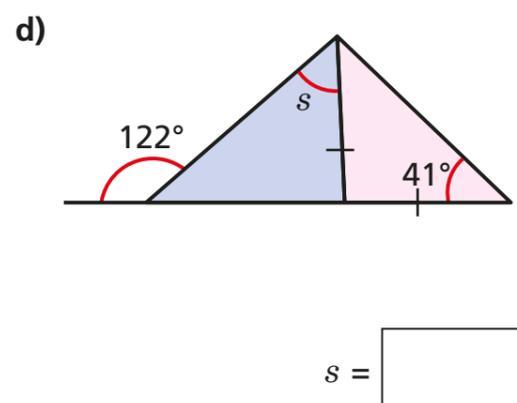
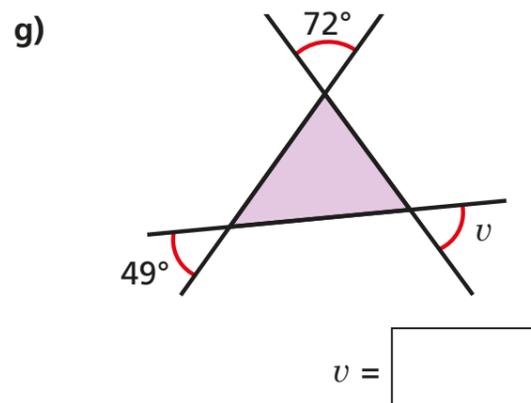
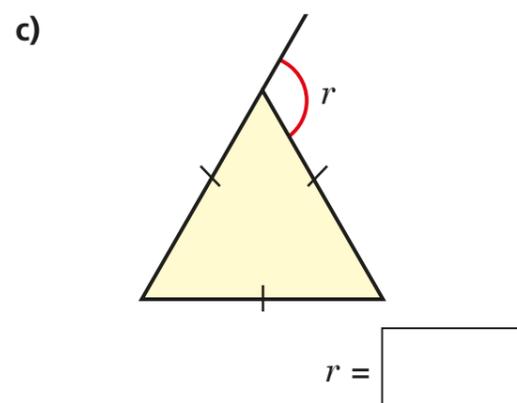
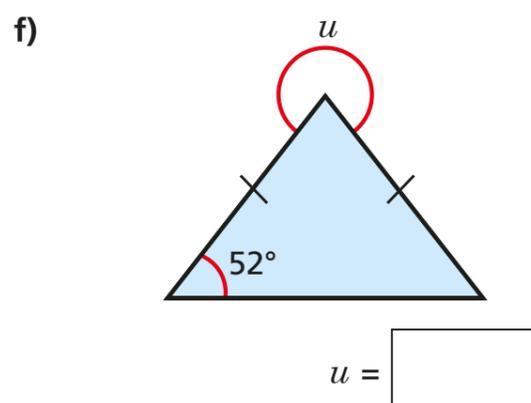
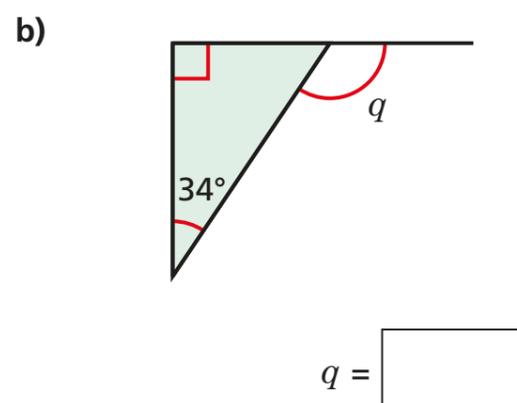
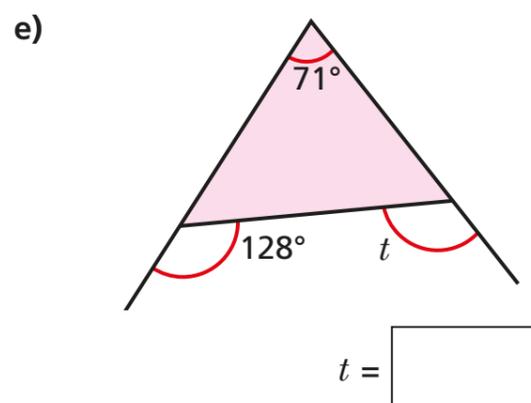
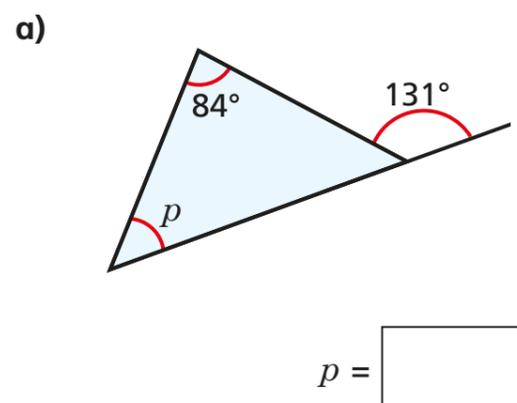


$g = \square$  because \_\_\_\_\_

$h = \square$  because \_\_\_\_\_

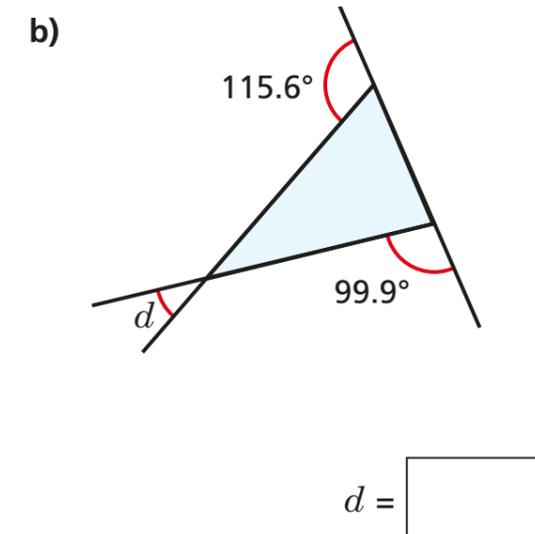
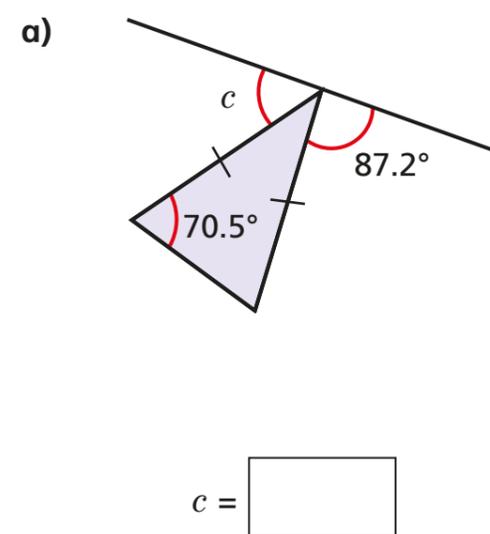
$i = \square$  because \_\_\_\_\_

3 Work out the sizes of the angles marked with letters.

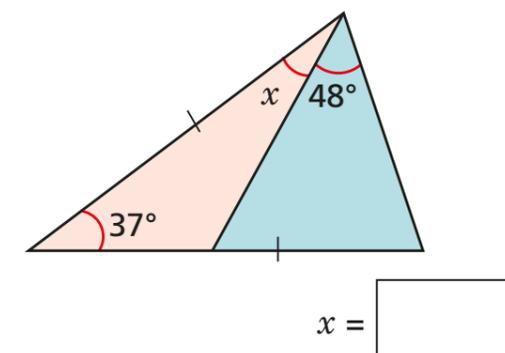


Talk about your reasons with a partner.

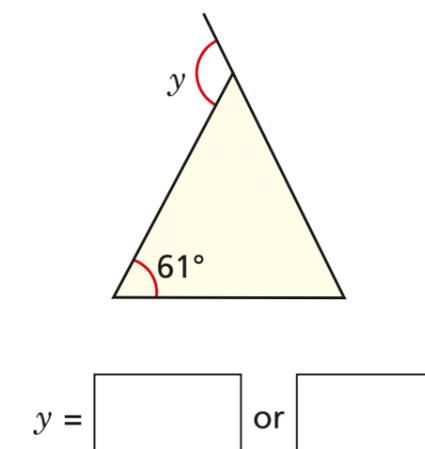
4 Work out the sizes of the unknown angles.



5 Work out the size of angle  $x$ .

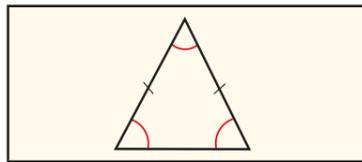


6 Here is an isosceles triangle. Find two possible sizes of angle  $y$ .

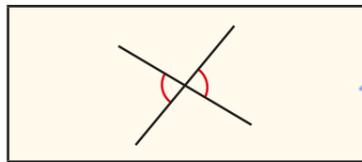


# Angles in a triangle – missing angles

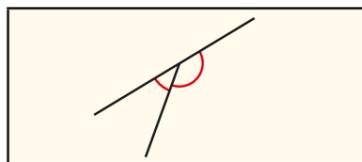
1 Match each diagram to the correct rule.



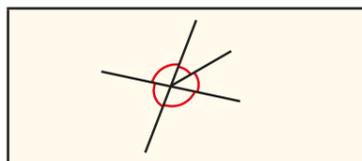
Angles on a straight line sum to  $180^\circ$



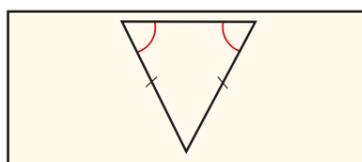
Angles around a point sum to  $360^\circ$



Angles in a triangle sum to  $180^\circ$



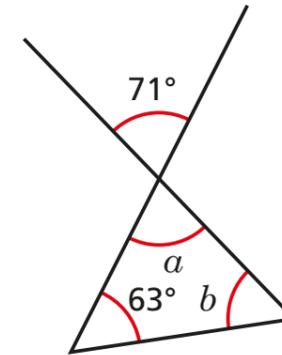
In an isosceles triangle, two angles are equal



Vertically opposite angles are equal

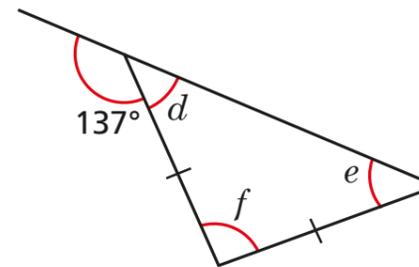
2 Work out the sizes of the unknown angles.  
Give reasons for each stage of your working.

a)



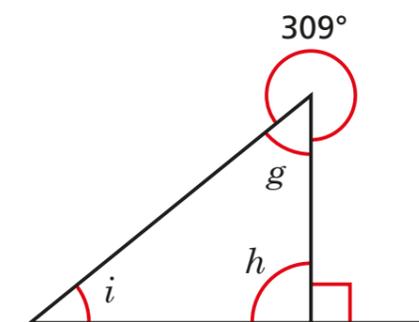
$a = 71^\circ$  because vertically opposite angles are equal  
 $b = 46^\circ$  because angles in a triangle sum to  $180^\circ$

b)



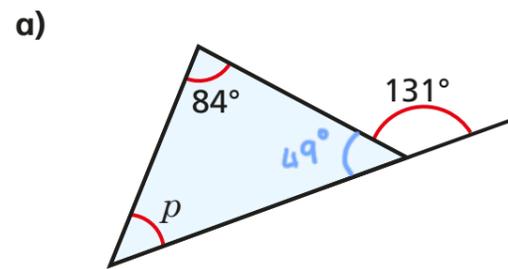
$d = 43^\circ$  because angles on a straight line sum to  $180^\circ$   
 $e = 43^\circ$  because in an isosceles triangle two angles are equal  
 $f = 94^\circ$  because angles in a triangle sum to  $180^\circ$

c)

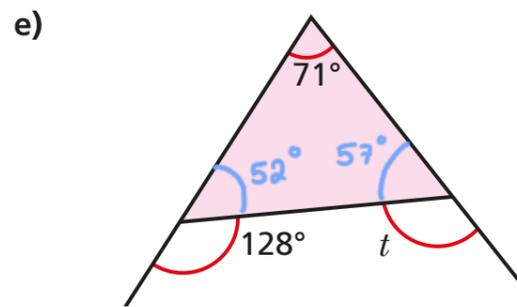


$g = 51^\circ$  because angles around a point sum to  $360^\circ$   
 $h = 90^\circ$  because angles on a straight line sum to  $180^\circ$   
 $i = 39^\circ$  because angles in a triangle sum to  $180^\circ$

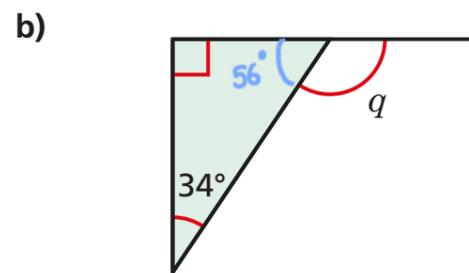
3 Work out the sizes of the angles marked with letters.



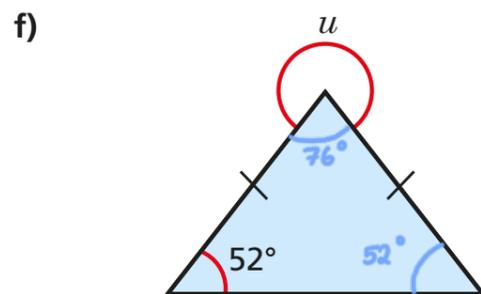
$p = 47^\circ$



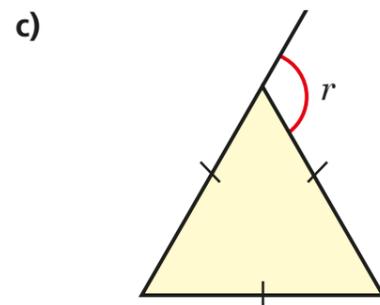
$t = 123^\circ$



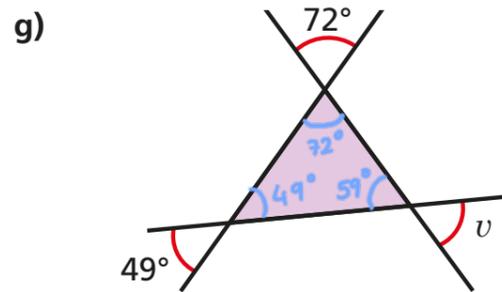
$q = 124^\circ$



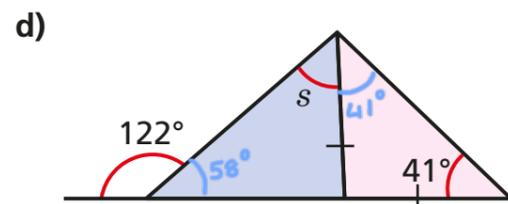
$u = 284^\circ$



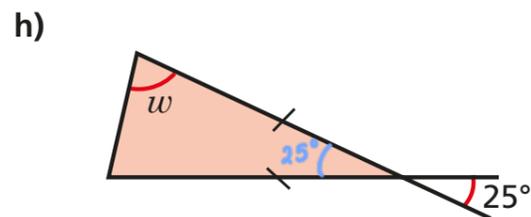
$r = 120^\circ$



$v = 59^\circ$



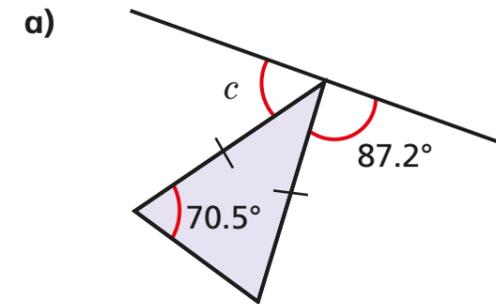
$s = 40^\circ$



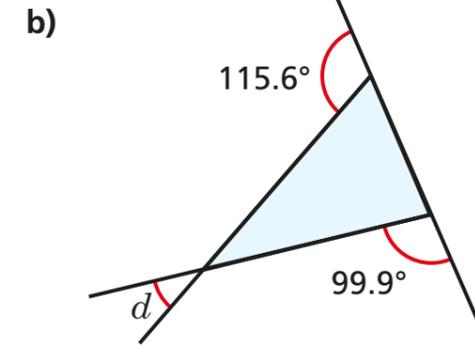
$w = 77.5^\circ$

Talk about your reasons with a partner.

4 Work out the sizes of the unknown angles.

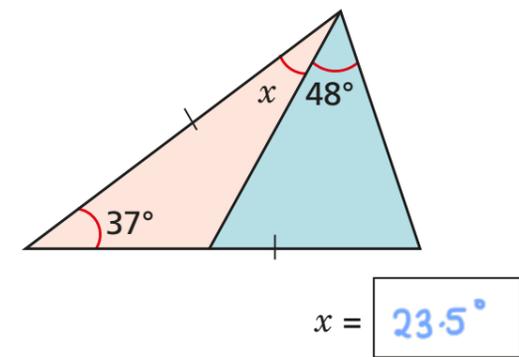


$c = 53.8^\circ$



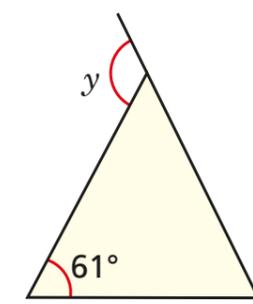
$d = 35.5^\circ$

5 Work out the size of angle  $x$ .



$x = 23.5^\circ$

6 Here is an isosceles triangle. Find two possible sizes of angle  $y$ .

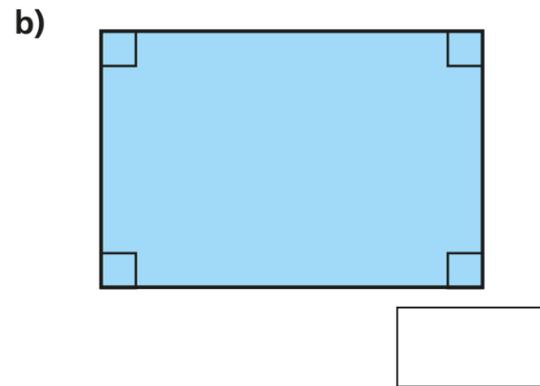
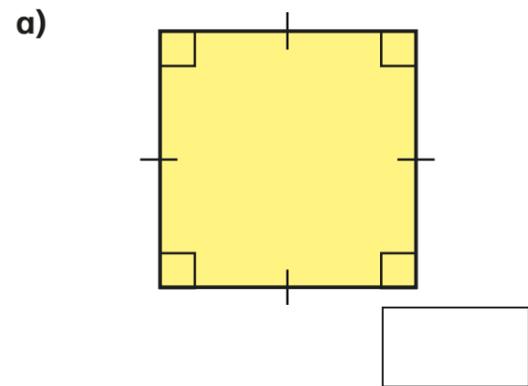


$y = 122^\circ$  or  $120.5^\circ$



# Angles in special quadrilaterals

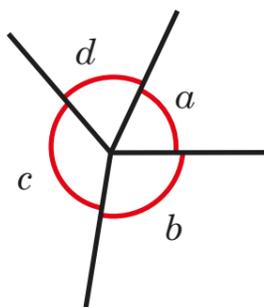
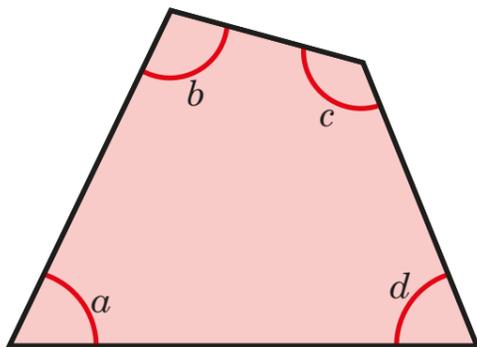
1 Work out the sum of the angles in each shape.



What do you notice?



2 The diagrams show the four vertices of a quadrilateral arranged around a point.



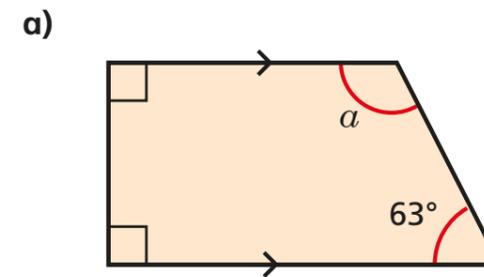
What do the diagrams illustrate about the sum of the angles in a quadrilateral?

Complete the sentence.

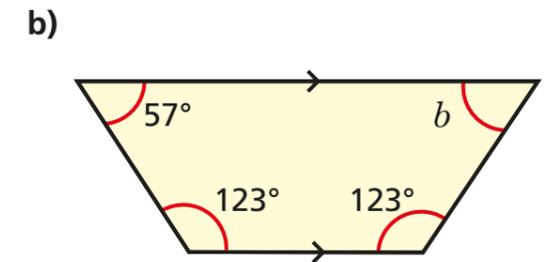
Angles in a quadrilateral \_\_\_\_\_



3 Work out the size of the unknown angle in each trapezium.



$a =$

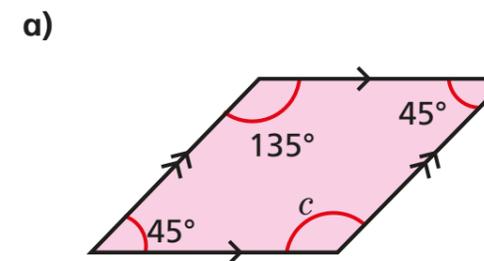


$b =$

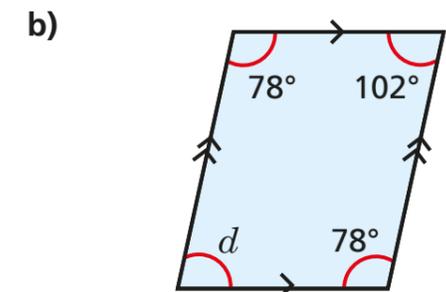
c) What is the same and what is different about the trapeziums?



4 Work out the sizes of the unknown angles.



$c =$



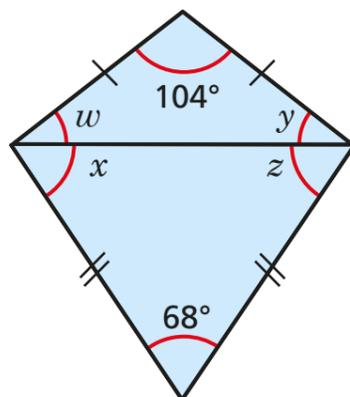
$d =$

c) What do you notice about opposite angles in a parallelogram?

\_\_\_\_\_

5 Two isosceles triangles are joined to form a kite.

a) Work out the sizes of the unknown angles.



$w =$       $y =$       $x =$       $z =$

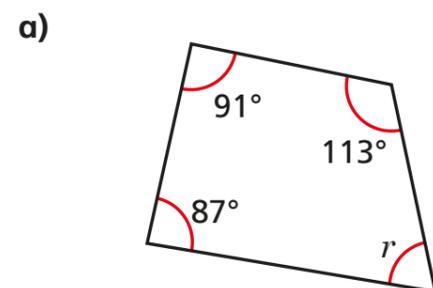
b) Work out  $w + x$ .

c) Work out  $y + z$ .

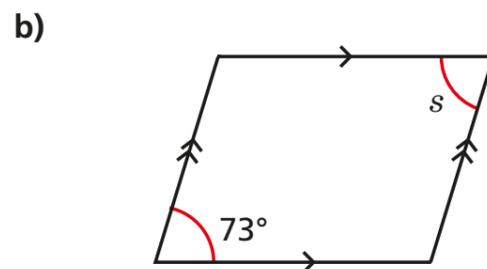
What do you notice? Talk about it with a partner.



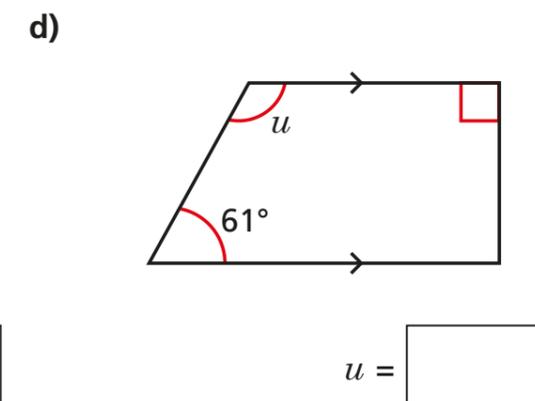
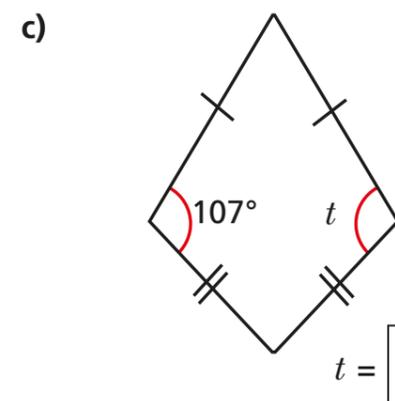
6 Work out the sizes of the unknown angles.



$r =$



$s =$



Compare your reasoning with a partner.

7 Teddy is drawing a quadrilateral.

My quadrilateral has exactly three right-angles.



Is Teddy's quadrilateral possible? \_\_\_\_\_

Explain your answer.

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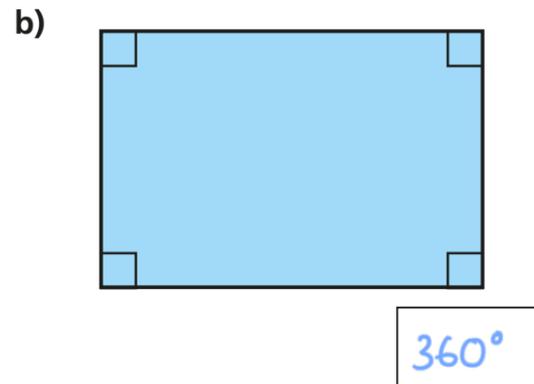
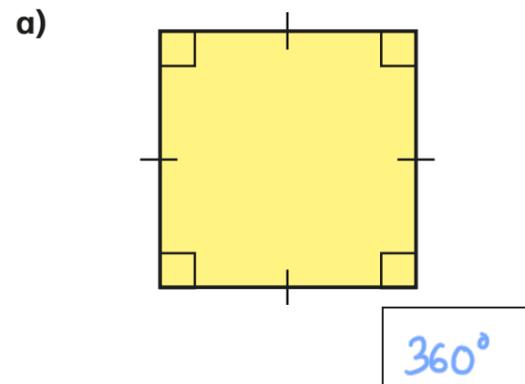


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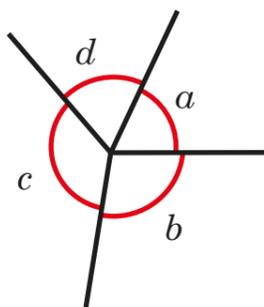
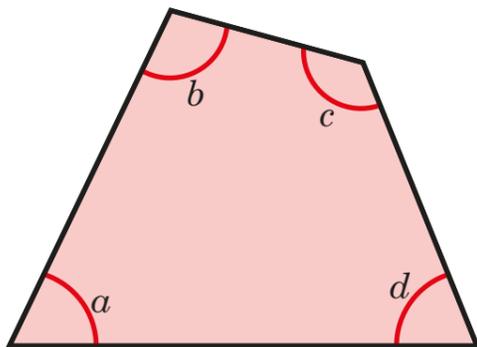
# Angles in special quadrilaterals

1 Work out the sum of the angles in each shape.



What do you notice?

2 The diagrams show the four vertices of a quadrilateral arranged around a point.

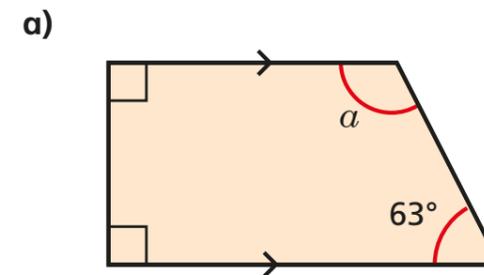


What do the diagrams illustrate about the sum of the angles in a quadrilateral?

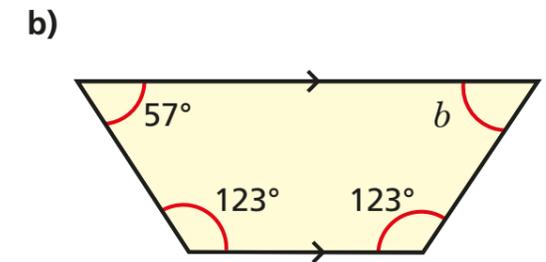
Complete the sentence.

Angles in a quadrilateral sum to  $360^\circ$

3 Work out the size of the unknown angle in each trapezium.



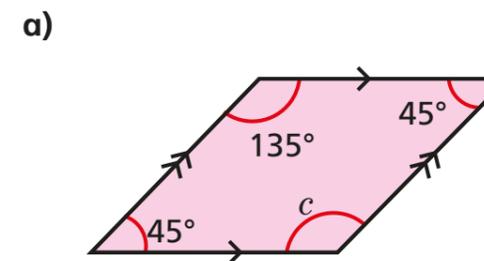
$a = 117^\circ$



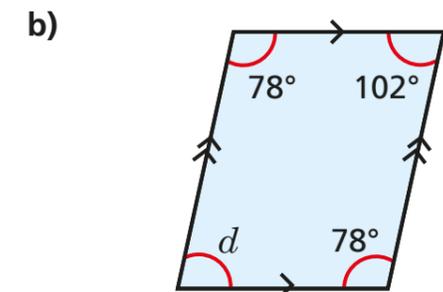
$b = 57^\circ$

c) What is the same and what is different about the trapeziums?

4 Work out the sizes of the unknown angles.



$c = 135^\circ$



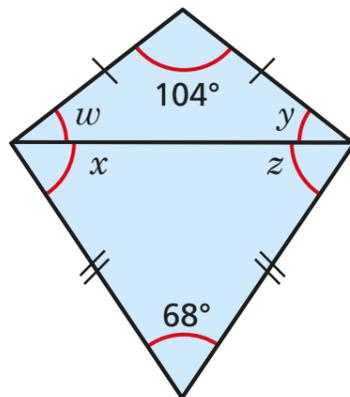
$d = 102^\circ$

c) What do you notice about opposite angles in a parallelogram?

They are equal.

5 Two isosceles triangles are joined to form a kite.

a) Work out the sizes of the unknown angles.



$w = 38^\circ$     $y = 38^\circ$     $x = 56^\circ$     $z = 56^\circ$

b) Work out  $w + x$ .

$94^\circ$

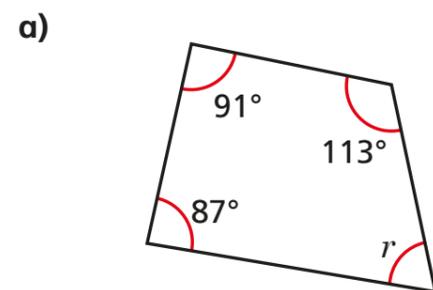
c) Work out  $y + z$ .

$94^\circ$

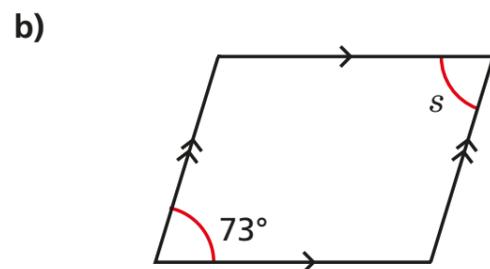
What do you notice? Talk about it with a partner.



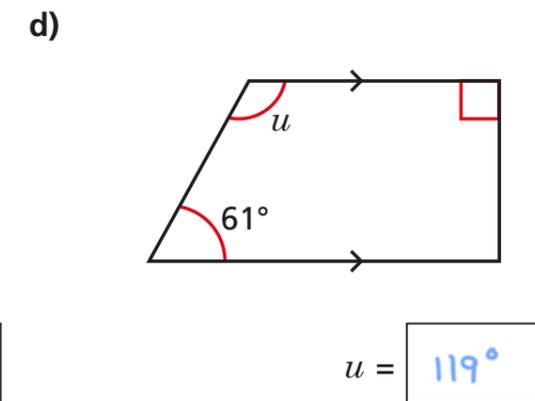
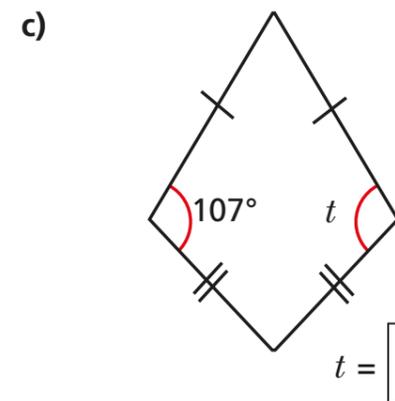
6 Work out the sizes of the unknown angles.



$r = 69^\circ$



$s = 73^\circ$



Compare your reasoning with a partner.

7 Teddy is drawing a quadrilateral.

My quadrilateral has exactly three right-angles.



Is Teddy's quadrilateral possible? No

Explain your answer.

$90 \times 3 = 270$     $360 - 270 = 90$

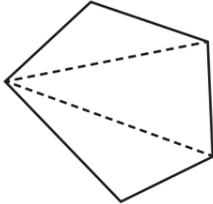
If three angles were right angles the fourth would also have to be a right angle.

# Angles in regular polygons

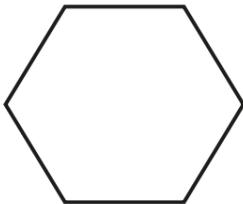
1 The sum of the interior angles of a triangle is  $180^\circ$ .

Split the polygons into triangles to work out the sum of their interior angles. Your lines should not overlap.

The first one has been done for you.

a)  number of sides =   
 number of triangles =   
 $3 \times 180 =$

The sum of the interior angles of a pentagon is

b)  number of sides =   
 number of triangles =   
  $\times 180 =$

The sum of the interior angles of a hexagon is

c)  number of sides =   
 number of triangles =   
  $\times 180 =$

The sum of the interior angles of a heptagon is

What do you notice about the number of sides compared to the number of triangles?

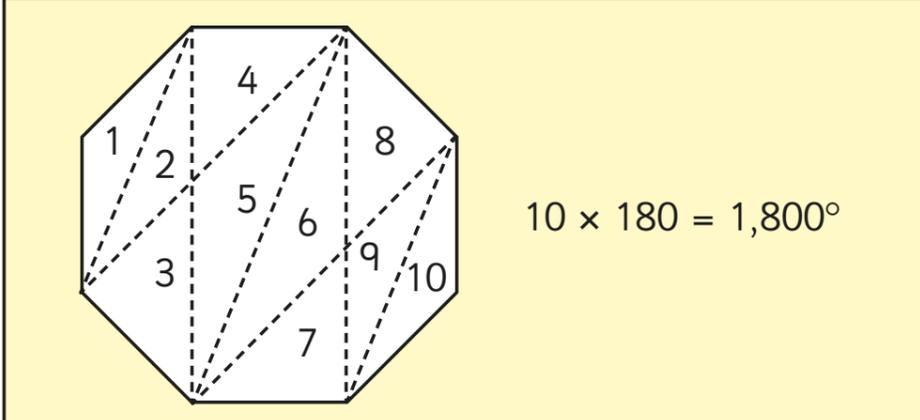
2 Complete the table.

Shape	Number of sides	Number of triangles	Sum of interior angles
quadrilateral	4	2	$360^\circ$
pentagon			
nonagon			
decagon			
	6		
		6	
			$1,800^\circ$

Compare answers with a partner.

3 Dani is working out the sum of the interior angles of a polygon.

Here are her workings.



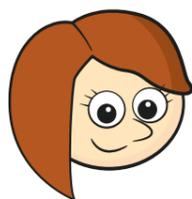
$10 \times 180 = 1,800^\circ$

Do you agree with Dani? \_\_\_\_\_

Explain your answer.

4 Rosie, Amir and Eva are drawing polygons.

a)



Rosie

I have split my polygon into four triangles.

What polygon has Rosie drawn? \_\_\_\_\_

b)

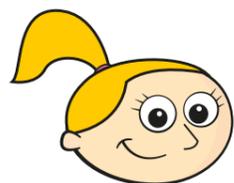
The sum of the interior angles of my polygon is  $1,080^\circ$ .



Amir

What polygon has Amir drawn? \_\_\_\_\_

c)



Eva

My polygon has more sides than Rosie's but fewer than Amir's.

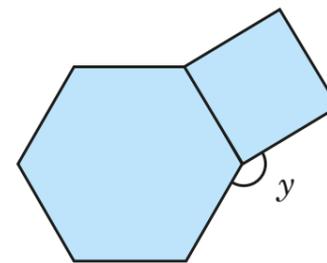
What is the sum of the interior angles of Eva's polygon?



5 Each compound shape is made up of regular polygons.

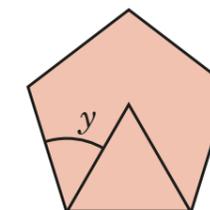
Work out angle  $y$  in each case.

a)



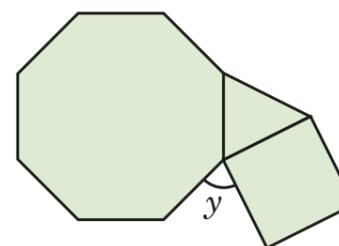
$y =$

c)



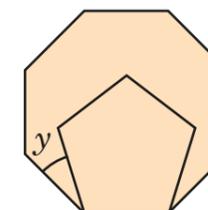
$y =$

b)



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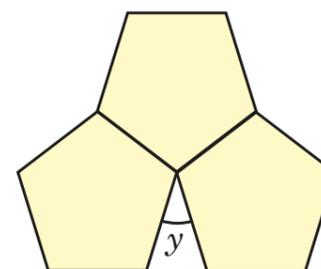
d)



$y =$

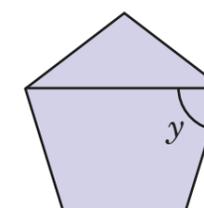
6 The pentagons shown are regular. Work out the size of angle  $y$  in each case.

a)



$y =$

b)



$y =$

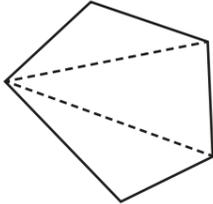


# Angles in regular polygons

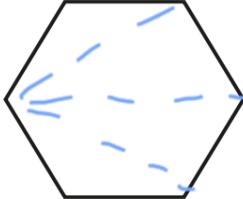
1 The sum of the interior angles of a triangle is  $180^\circ$ .

Split the polygons into triangles to work out the sum of their interior angles. Your lines should not overlap.

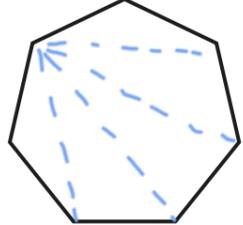
The first one has been done for you.

a)  number of sides =   
 number of triangles =   
 $3 \times 180 =$

The sum of the interior angles of a pentagon is

b)  number of sides =   
 number of triangles =   
  $\times 180 =$

The sum of the interior angles of a hexagon is

c)  number of sides =   
 number of triangles =   
  $\times 180 =$

The sum of the interior angles of a heptagon is

What do you notice about the number of sides compared to the number of triangles?

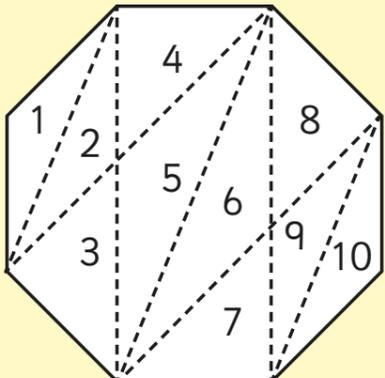
2 Complete the table.

Shape	Number of sides	Number of triangles	Sum of interior angles
quadrilateral	4	2	$360^\circ$
pentagon	5	3	$540^\circ$
nonagon	9	7	$1,260^\circ$
decagon	10	8	$1,440^\circ$
hexagon	6	4	$720^\circ$
octagon	8	6	$1,080^\circ$
dodecagon	12	10	$1,800^\circ$

Compare answers with a partner.

3 Dani is working out the sum of the interior angles of a polygon.

Here are her workings.



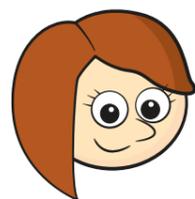
$10 \times 180 = 1,800^\circ$

Do you agree with Dani? NO

Explain your answer.

4 Rosie, Amir and Eva are drawing polygons.

a)



Rosie

I have split my polygon into four triangles.

What polygon has Rosie drawn?

hexagon

b)

The sum of the interior angles of my polygon is  $1,080^\circ$ .

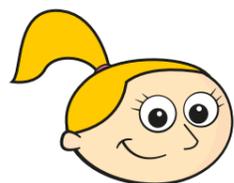


Amir

What polygon has Amir drawn?

octagon

c)



Eva

My polygon has more sides than Rosie's but fewer than Amir's.

What is the sum of the interior angles of Eva's polygon?

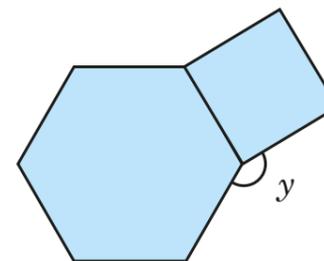
$900^\circ$



5 Each compound shape is made up of regular polygons.

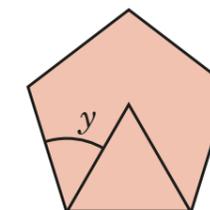
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a)



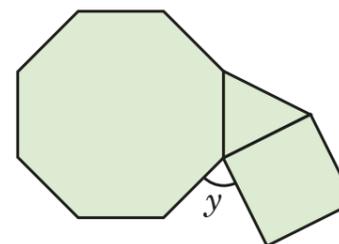
$y =$

c)



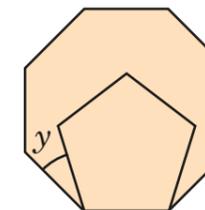
$y =$

b)



$y =$

d)

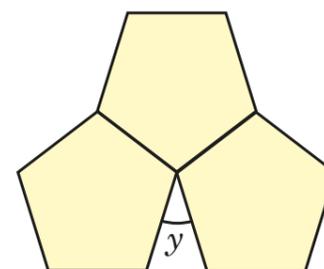


$y =$

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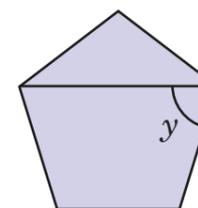
Work out the size of angle  $y$  in each case.

a)



$y =$

b)



$y =$





# Alexandra

Primary School

Aspire, Perform, Succeed

## Rights Respecting Article of the Week

**Article 28 – Every child has the right to an education.**

**Primary education must be free and different forms of secondary education must be available to every child.**

As you know we are currently a Silver Rights Respecting school. We would like you to know your rights even more than you do so already. Knowing about your rights is an important place to start.

This week the Article of the Week is Article 28. This is all about the need for children to know and understand their rights.

Each week there will be an Article of the Week PowerPoint accompanying your Home Learning Grid, where you can choose some activities to do to show your understanding of the United Nations Convention on the Rights of the Child.

Here you will find all of the Articles for you to remind yourselves again: [Rights of the Child.](#)

Look at the following videos of information about Children's rights for younger children to access learning about rights:

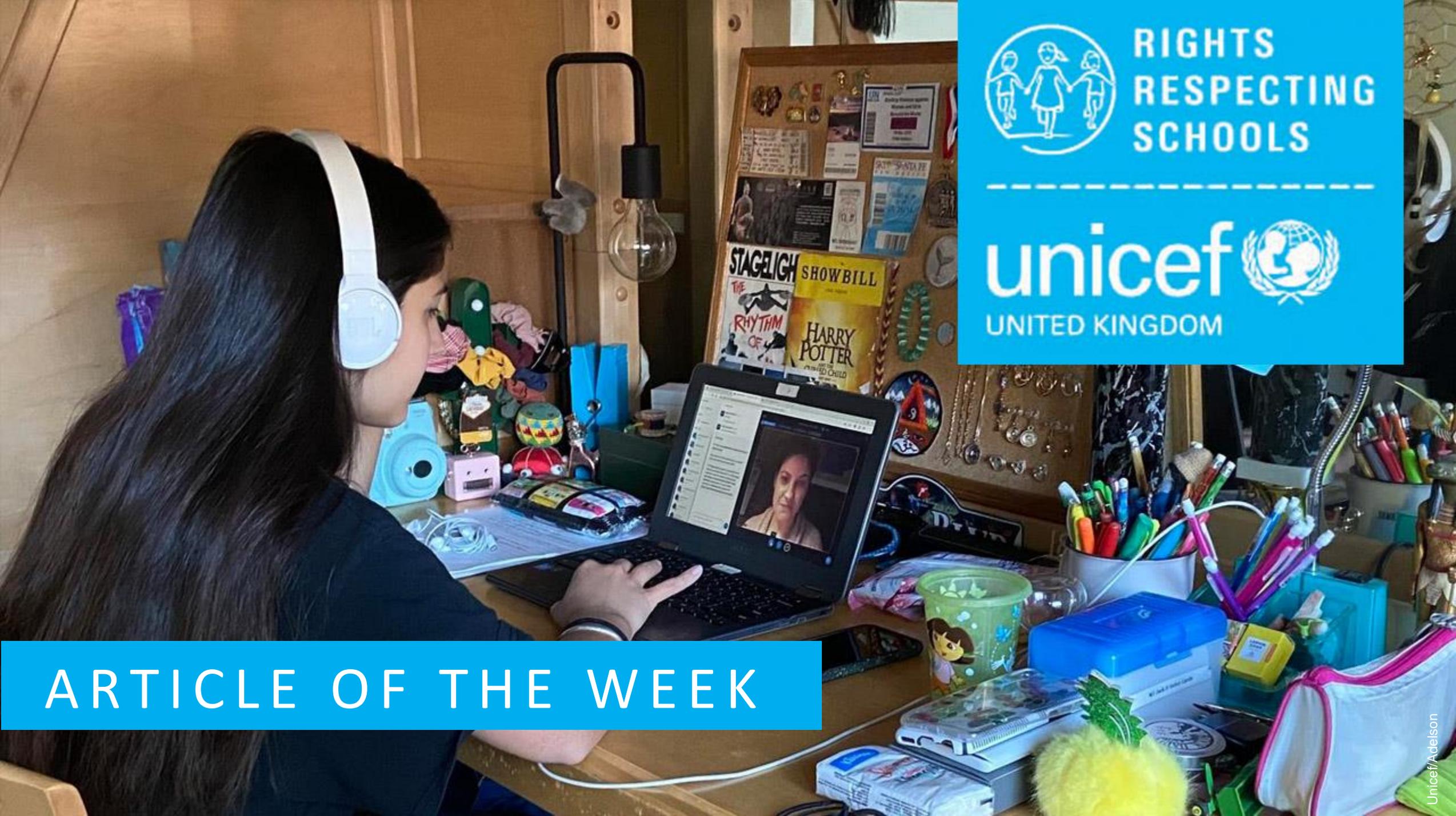
[What are child's rights?](#)



[Realising the Rights of Every Child](#)



We are looking forward to seeing your responses to the activities set on the PowerPoint that accompanies this guidance. Nursery and Reception have ideas to consider for their year group on their home learning grid. From Year 1 upwards, please select the activities you would like to do and share them with us via APS Allstars. (Nursery and Reception children can work with their siblings on activities if parents so wish.)



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ARTICLE OF THE WEEK

# GUESS THE ARTICLE

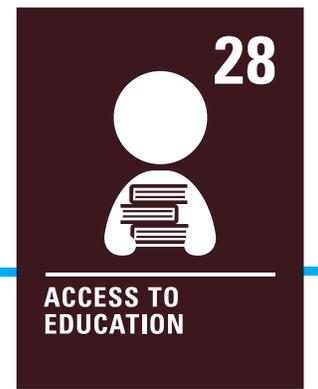
These pictures provide a clue to this week's article.

How do these pictures help you? Can you guess how they are linked together?

Write down your thoughts or discuss with someone in your house.



# INTRODUCING... ARTICLE 28



## Jilly introduces Article 28



Article 28 – the right to education  
Every child has the right to an education.  
Primary education must be free and different forms of secondary education must be available to every child.  
Discipline in schools must respect children's dignity and their rights.  
Richer countries must help poorer countries achieve this.

[Watch Jilly on YouTube](#)

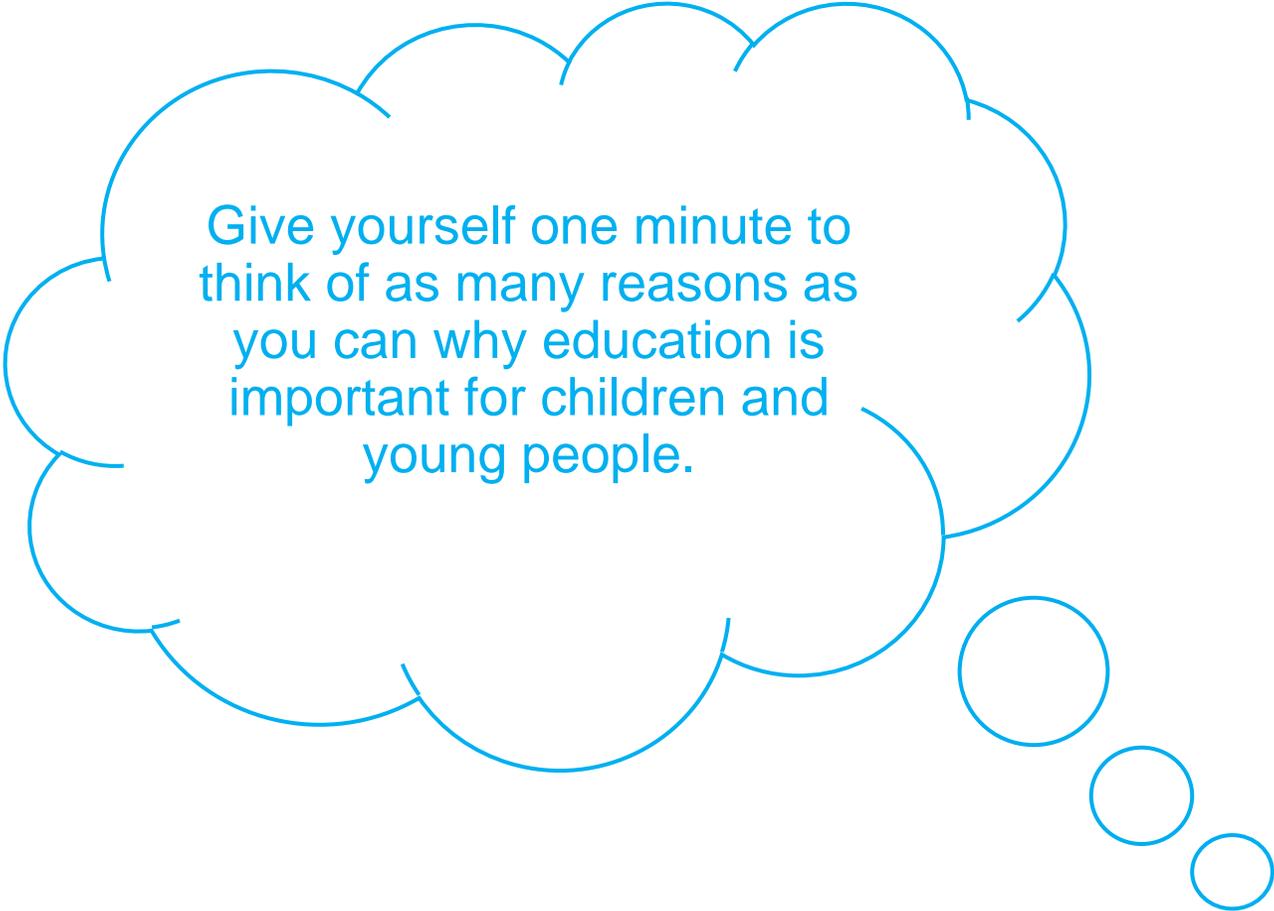
unicef  
UNITED KINGDOM



RIGHTS  
RESPECTING  
SCHOOLS

# WHY IS THE RIGHT TO EDUCATION IMPORTANT?

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Give yourself one minute to think of as many reasons as you can why education is important for children and young people.

You might like to ask someone else in your house to do this too. At the end of one minute share your thoughts and then compare with the ideas on the next slide.

# HOW MANY OF THESE DID YOU GET?

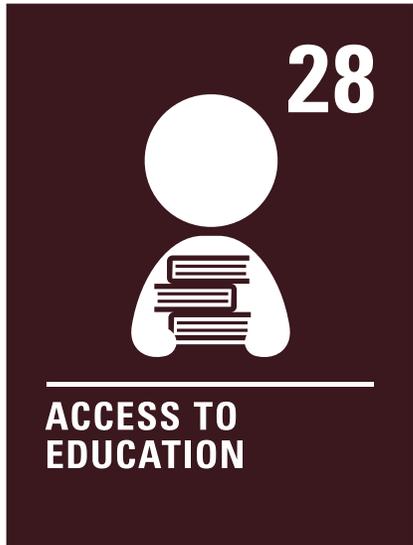
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Education is important to children and young people because it will help them to:

- have skills to improve things and help people
- form opinions and views about things
- learn things, gain knowledge and pass exams
- know how to stay safe and healthy
- learn how to respect other people's ideas and get on with other people
- get a job they enjoy and earn money
- make informed choices
- have more opportunities in life
- learn about things that are important for the world
- grow up to be responsible adults

# ACTIVITY TIME

All these activities are related to...



You don't need to do every single activity but if you have time you can do more than one.

Imagine you have been asked to create your ideal lesson timetable for a day or a week at home or in school. Plan it out and decide what you would include and what you would leave out. Make sure it will provide children with a really good quality education!



What do you think makes a good teacher? [This video](#) might give you some ideas! Draw an outline of your ideal teacher and surround it with words that describe what that teacher is like.



Teachers and learners go together! So now think about what makes a good learner? Imagine you are talking to a younger brother, sister or friend who is about to start school. Describe to them how to be a really good learner! Invent a cartoon character to represent this good learner.

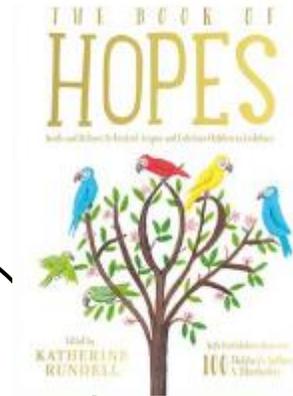


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Watch [‘Education is every child’s right’ video](#) and use it to help you create a poem about education and learning.

You could begin:

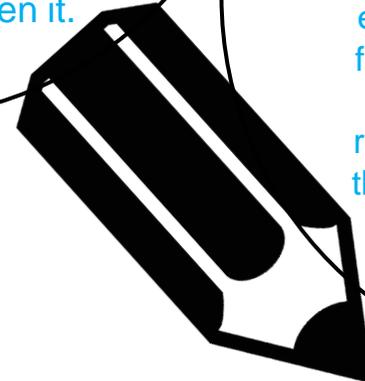
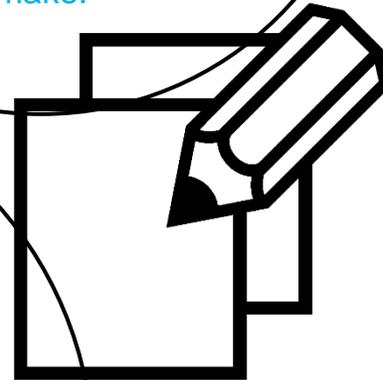
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Schools and teachers do so much more than teach you facts. Think of every thing that happens at your school – how the adults look after you and treat you with dignity and respect, how you look after each other. Now write a ‘recipe’ for a Rights Respecting School. What are the ingredients? e.g. respect, safety. How do you mix them together to create the best rights respecting learning environment?



# REFLECTION

**Think about your own learning for a few minutes – your own learning in school and outside of school.**

- What do you love learning about the most?
- What are you passionate about? What makes you excited to get up in the morning?
- What are you good at? Or would like to be better at?
- How do you learn best?

Now re-imagine a new kind of school that fitted you exactly. What would it be like? Would it be an actual building? A workshop? A studio? A virtual school? Or an outside space? Let your imagination run...



# EXTENSION

Children's rights are universal and indivisible and the right to a good quality education is an example of how rights are interdependent.

For a child to enjoy a good quality education lots of other rights need to be accessed too – health for example. You can't learn effectively if you are unwell.

Think about which other rights are important if all children are to enjoy their right to learn?

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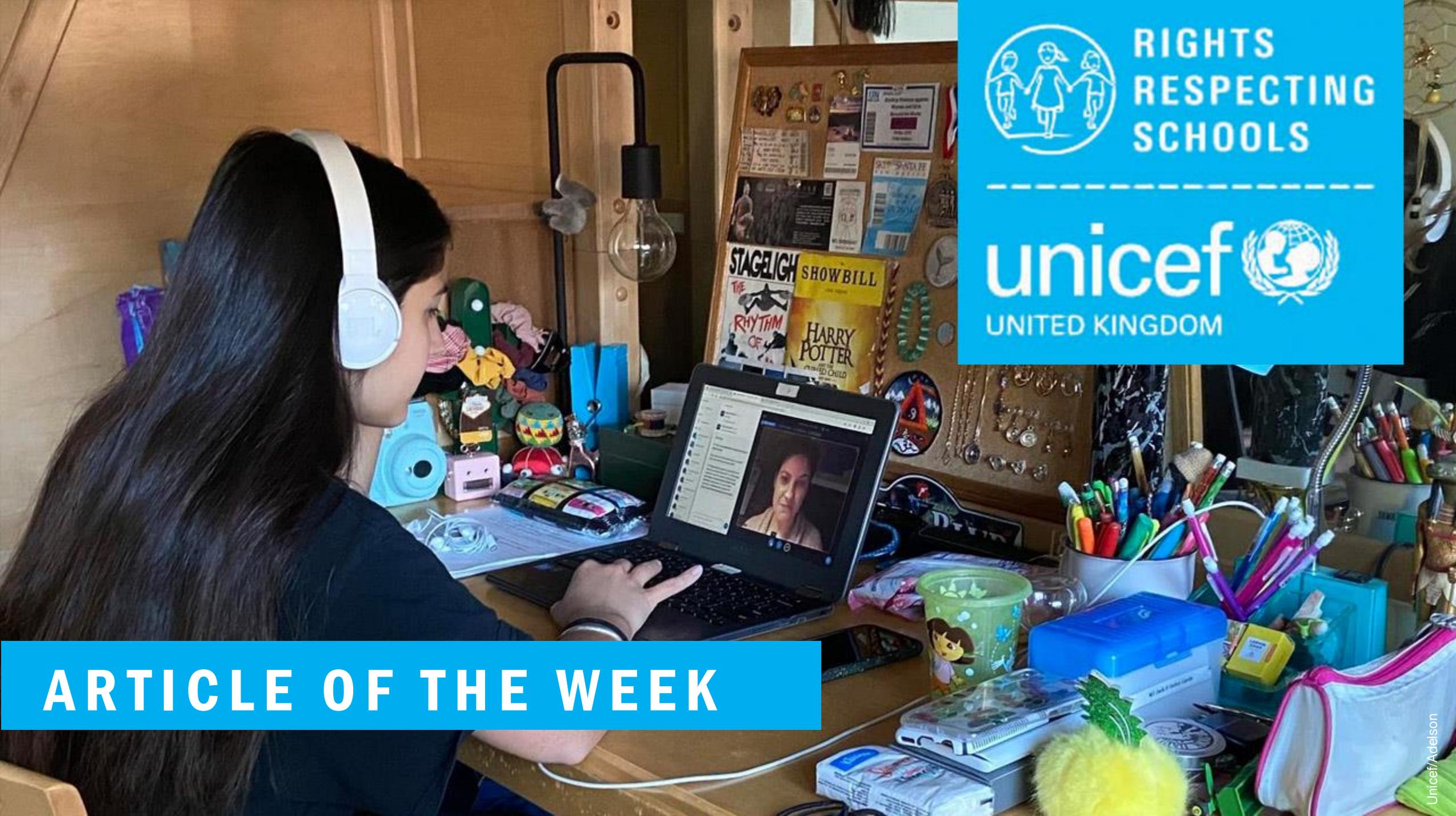


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SCHOOLS

THANK YOU



RIGHTS  
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SCHOOLS

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**ARTICLE OF THE WEEK**

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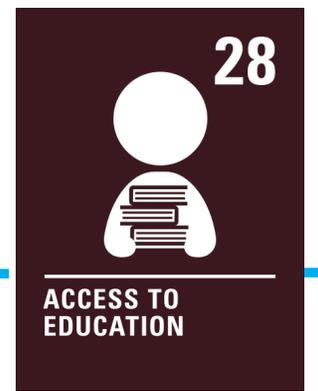
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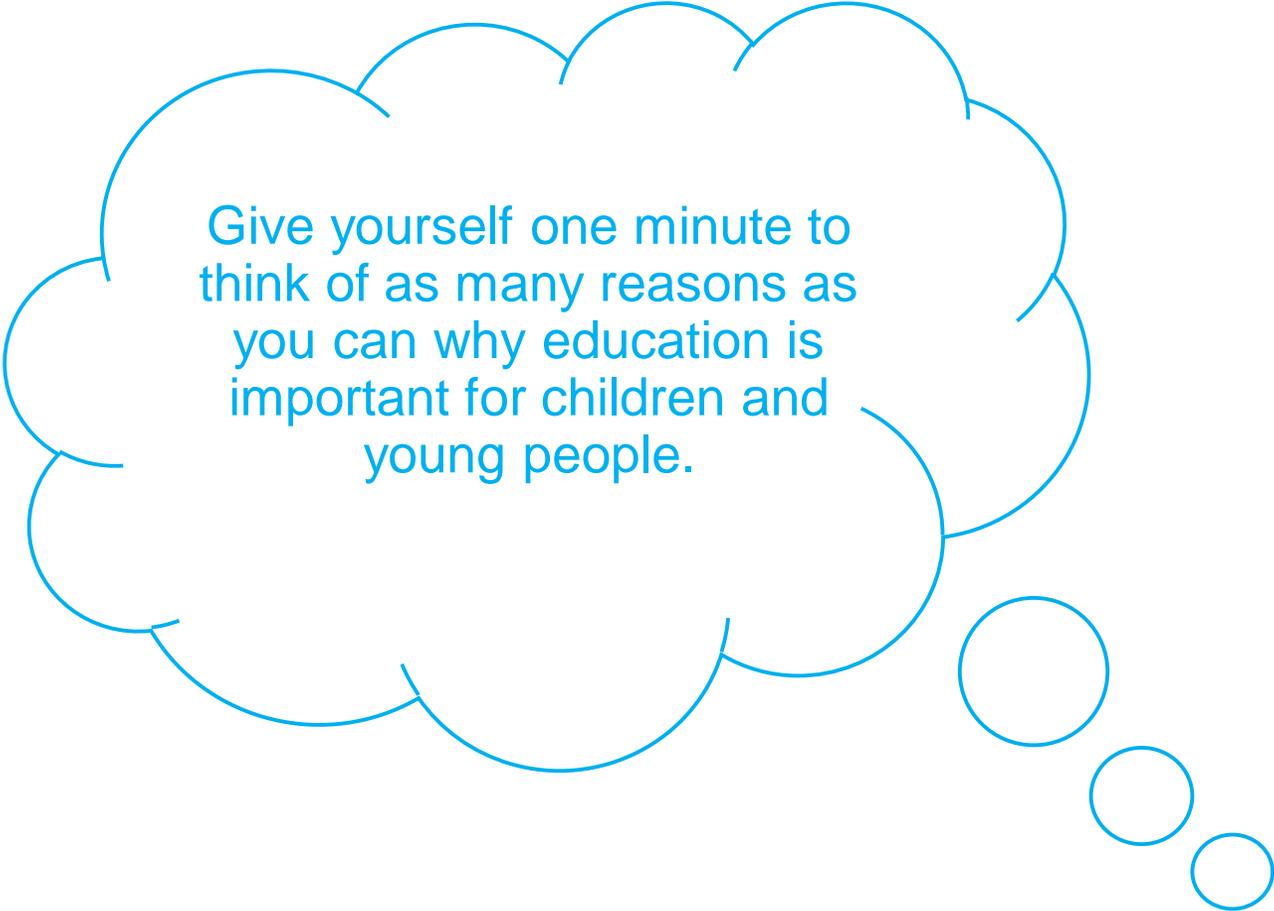
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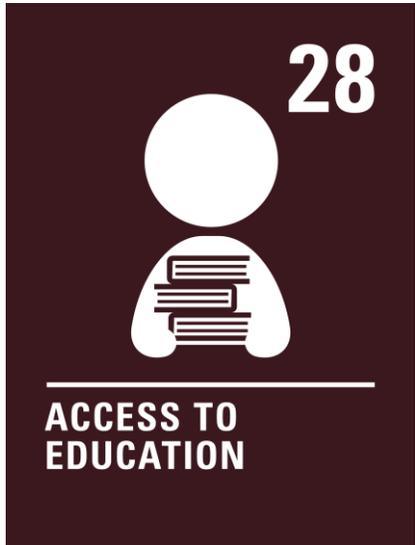
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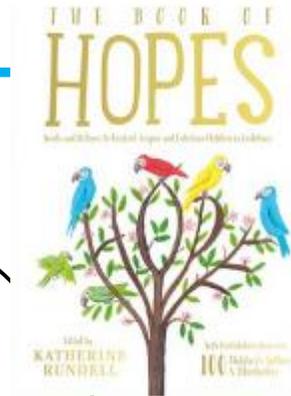


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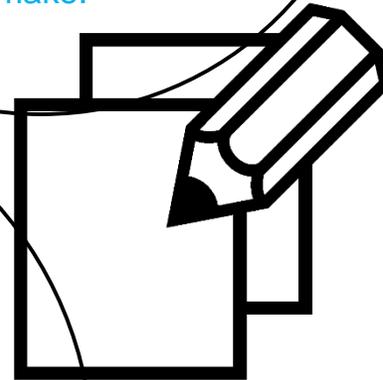
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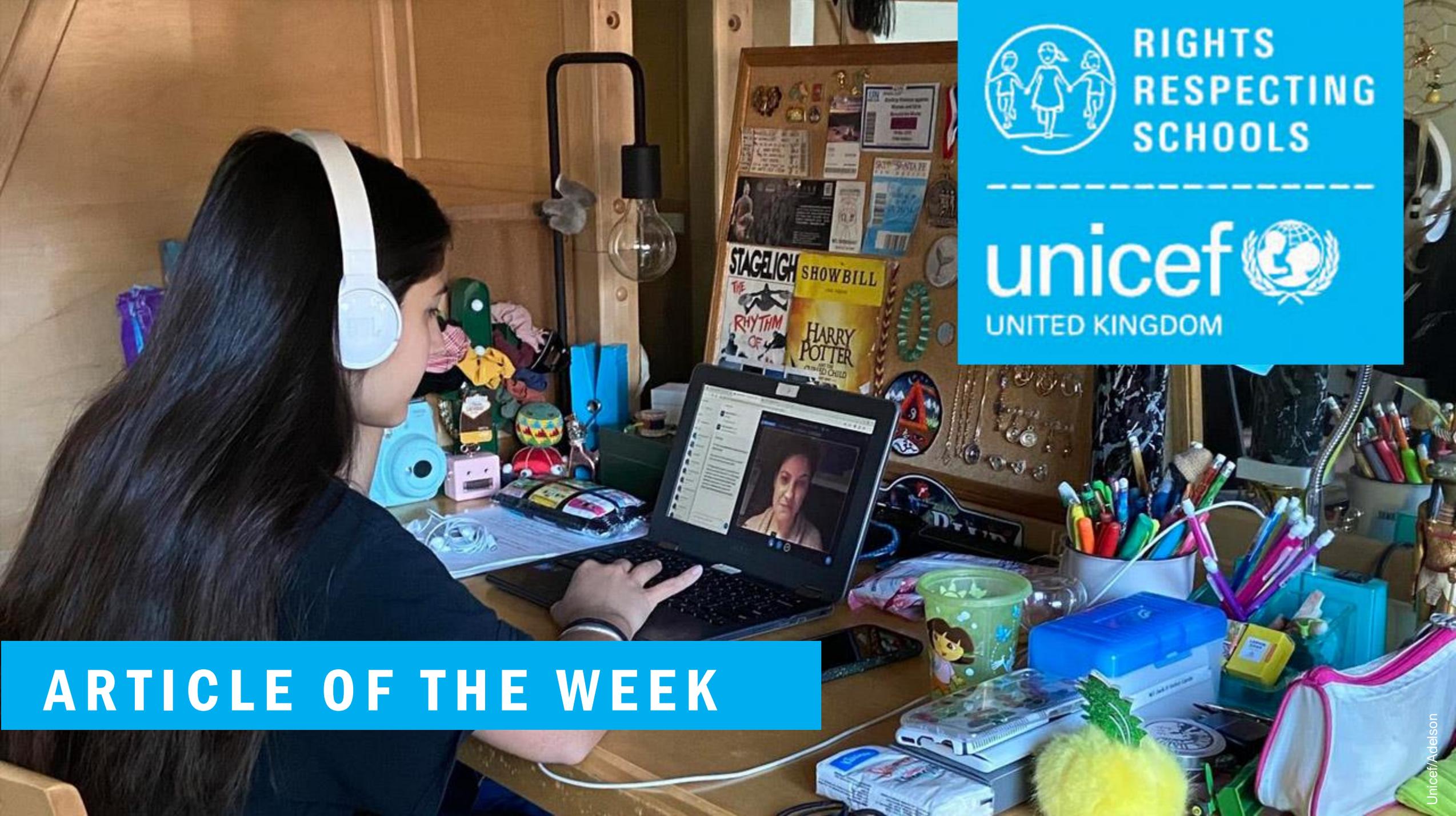


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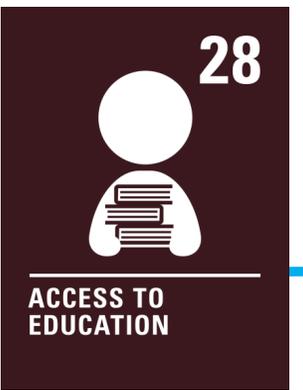
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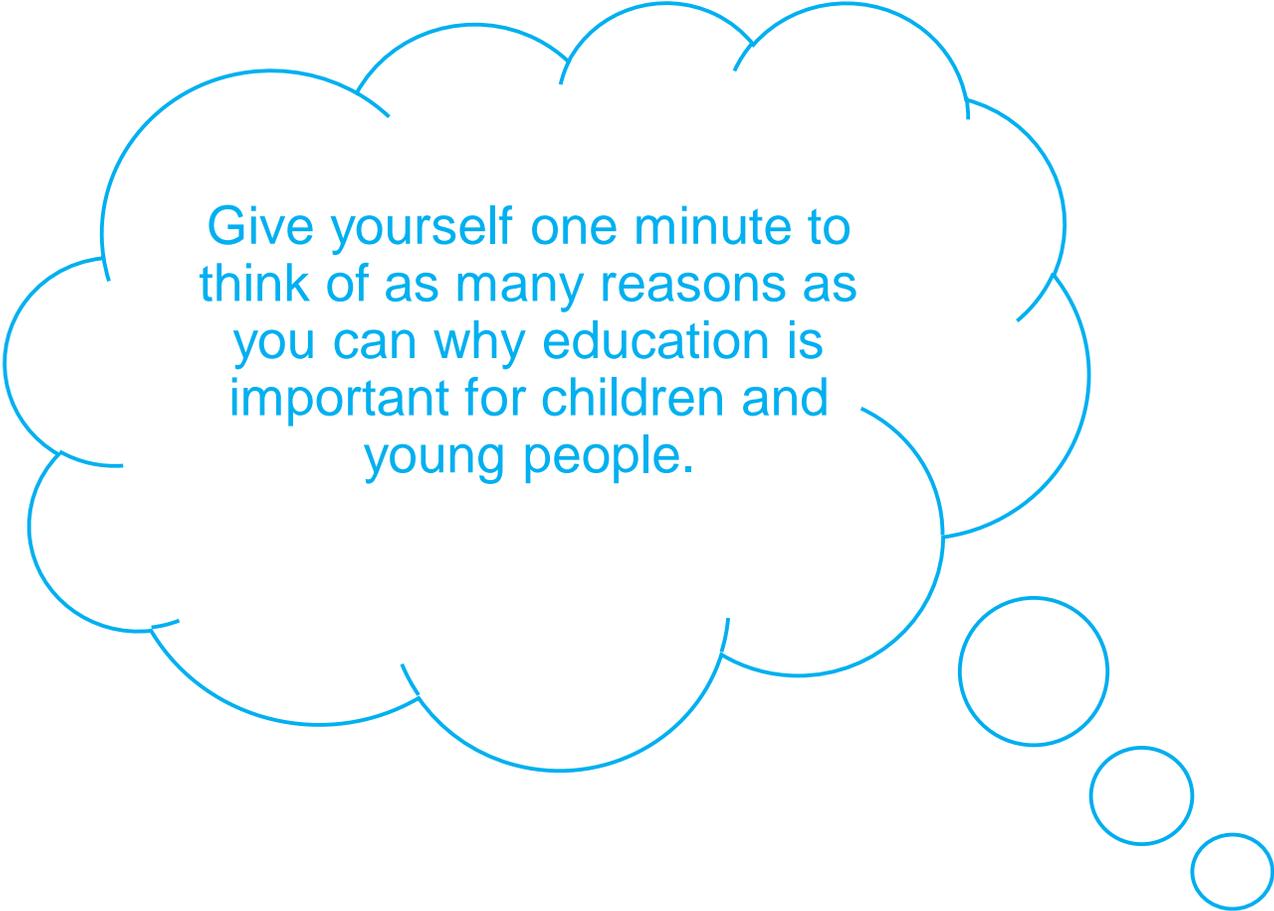
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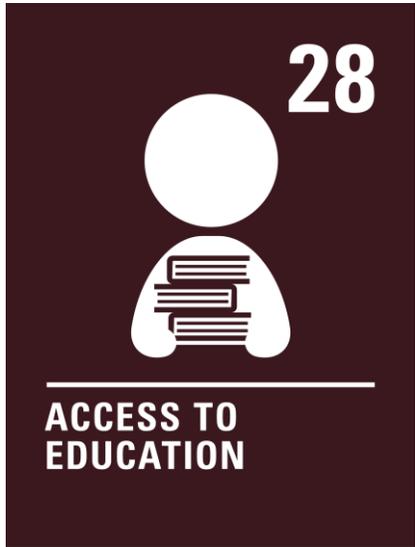
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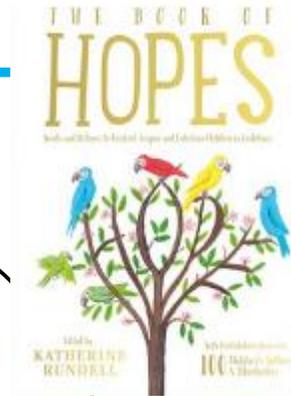


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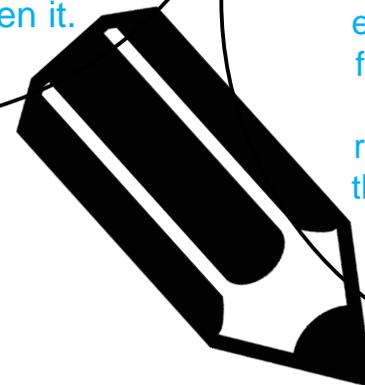
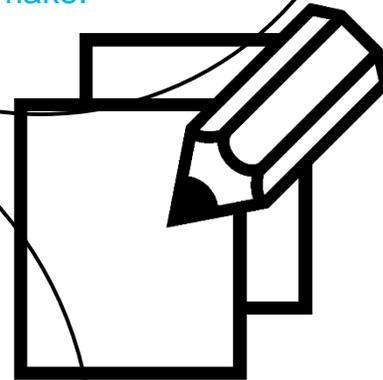
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