






Grade 12

School-without-Walls Package 8 (10 May to 14 May 2021)

Homework_Day 1 (10 May 2021)

Subject	Click on the Youtube Links	Things to Note
English	<p>Article-a-Day Week → AMAZING YOUNG PEOPLE</p> <p>How to get to your Article for Day 1</p> <p>Click → www.readworks.org/student</p> <ol style="list-style-type: none"> 1. Enter class code 55QG3L 2. Click on YOUR NAME. 3. The default password is 1234. 4. Click on one of the two articles you will like to read. <p>Remember: Words are where humans store knowledge. So we build our knowledge by reading these articles. We will also increase our vocabulary, improve our reading stamina, and enjoy reading every day!</p> <p>Read an article a day to find out more about Amazing Young People in the world. After reading each article, type in the BOOK of KNOWLEDGE (minimum of 50 words) what new knowledge you have gained from the reading the article.</p> <p>Results Book of Knowledge Articles</p> <hr/> <p>Articles</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="width: 20%; text-align: center;">  <p>Remya Cleans Up 0 entries</p> </div> <div style="width: 20%; text-align: center;">  <p>Billie Eilish Does It Her Way 0 entries</p> </div> <div style="width: 20%; text-align: center;">  <p>From TikTok to the Grammys 0 entries</p> </div> <div style="width: 20%; text-align: center;">  <p>Keeping the Lions Away 0 entries</p> </div> <div style="width: 20%; text-align: center;">  <p>Greta Thunberg Is Worried About the Future 0 entries</p> </div> <div style="width: 20%; text-align: center;">  <p>Teen Chefs Take Charge 0 entries</p> </div> <div style="width: 20%; text-align: center;">  <p>Skateboard Stars 0 entries</p> </div> </div>	
Mathematics	Review on Operations on Polynomials	<p>Do Exercise 1B within 25 minutes #1b, 2c, 3d, 4e, 5f</p> <p>Show your workings in maths 1</p> <p>Submit your answers only in this link https://forms.gle/q74Kph4FSVqgVM6v8</p> <p>Homework Practise Now 8 a,b,c</p>
Chemistry	Read Chapter 12.19 to 12.20	Answer 5D section Review # 1-5 in your chemistry note book

11B Section Review

1. Under what conditions will momentum be completely conserved in a collision between two objects?

The only necessary condition for ensuring conservation of momentum in a collision is that no external forces may act on the system of colliding objects. (§11.7)

2. (True or False) If the only forces at work on a system are internal, momentum is conserved.

True (§11.7)

3. Under what conditions will kinetic energy be conserved during a collision?

Kinetic energy can be conserved only if the collision is completely elastic and momentum is conserved as well (i.e., no external forces act on the system of objects). (§11.8)

- ★7. An air track glider of mass $m_1 = 1.80$ kg with an initial velocity of 1.20 m/s to the right collides elastically with a stationary glider of mass $m_2 = 5.00$ kg. Calculate the speed and direction of the two gliders after the collision.

$$v_{1\text{aft}} = \left(\frac{m_1 - m_2}{m_1 + m_2} \right) v_{1\text{bef}}$$

$$v_{1\text{aft}} = \left(\frac{1.80 \text{ kg} - 5.00 \text{ kg}}{1.80 \text{ kg} + 5.00 \text{ kg}} \right) (+1.20 \text{ m/s})$$

$$v_{1\text{aft}} \cong 0.5647 \text{ m/s} (\cong 0.565 \text{ m/s}) \text{ to the left}$$

$$v_{2\text{aft}} = \left(\frac{2m_1}{m_1 + m_2} \right) v_{1\text{bef}}$$

$$v_{2\text{aft}} = \left(\frac{2(1.80 \text{ kg})}{1.80 \text{ kg} + 5.00 \text{ kg}} \right) (+1.20 \text{ m/s})$$

$$v_{2\text{aft}} \cong 0.6352 \text{ m/s} (\cong 0.635 \text{ m/s}) \text{ to the right}$$

Data:

$$m_1 = 1.80 \text{ kg}$$

$$v_{1\text{bef}} = 1.20 \text{ m/s right}$$

$$m_2 = 5.00 \text{ kg}$$

- ★8. An air track glider ($m_1 = 1.80$ kg) moving to the right collides with a stationary glider (m_2). What must the mass of the second glider be in order for its velocity after the collision to be 1.2 times the first glider's initial velocity?

$$v_{2\text{aft}} = \left(\frac{2m_1}{m_1 + m_2} \right) v_{1\text{bef}}$$

$$(1.2) v_{1\text{bef}} = \frac{2m_1}{m_1 + m_2} v_{1\text{bef}}$$

$$1.2(m_1 + m_2) = 2m_1$$

$$m_2 = \frac{2m_1}{1.2} - m_1 = \frac{2(1.80 \text{ kg})}{1.2} - 1.80 \text{ kg}$$

$$m_2 = 1.20 \text{ kg}$$

Data:

$$m_1 = 1.80 \text{ kg}$$

$$v_{2\text{aft}} = 1.2v_{1\text{bef}}$$

9. A 6.80 g bullet traveling at 1010 m/s to the right imbeds itself in a 3.00 kg cube of oak sitting on a fence post.

a. What is the velocity of the block-and-bullet mass after the impact?

$$p_{\text{bfr}} = p_{\text{aft}}$$

$$m_b v_{b, \text{bfr}} = (m_b + m_{\text{block}}) v_{\text{aft}}$$

$$v_{\text{aft}} = \frac{m_b}{(m_b + m_{\text{block}})} v_{b, \text{bfr}}$$

$$v_{\text{aft}} = \left(\frac{0.00680 \text{ kg}}{0.00680 \text{ kg} + 3.00 \text{ kg}} \right) (+1010 \text{ m/s})$$

$$v_{\text{aft}} = +2.284 \text{ m/s}$$

$$v_{\text{aft}} \approx 2.284 \text{ m/s} (\approx 2.28 \text{ m/s}) \text{ to the right}$$

Data:

$$m_b = 6.80 \text{ g}$$

$$= 0.00680 \text{ kg}$$

$$v_{b, \text{bfr}} = 1010 \text{ m/s}$$

$$m_{\text{block}} = 3.00 \text{ kg}$$

b. How much mechanical energy was converted to internal work, thermal, and other forms of energy at impact?

Lost energy is equal to change of kinetic energy of the bullet-block system.

$$\Delta K = K_{\text{aft}} - K_{\text{bfr}}$$

$$K_{\text{bfr}} = \frac{1}{2} m_b v_{b, \text{bfr}}^2 + \frac{1}{2} m_{\text{block}} v_{\text{block, bfr}}^2 = \frac{1}{2} m_b v_{b, \text{bfr}}^2 + 0 \text{ kg} \cdot \text{m/s}$$

$$K_{\text{bfr}} = \frac{1}{2} (0.00680 \text{ kg}) (1010 \text{ m/s})^2 \approx 3468 \text{ J}$$

$$K_{\text{aft}} = \frac{1}{2} m_b v_{\text{aft}}^2 + \frac{1}{2} m_{\text{block}} v_{\text{aft}}^2 = \frac{1}{2} (m_b + m_{\text{block}}) v_{\text{aft}}^2$$

$$K_{\text{aft}} = \frac{1}{2} (0.00680 \text{ kg} + 3.00 \text{ kg}) (2.284 \text{ m/s})^2 \approx 7.842 \text{ J}$$

$$\Delta K = K_{\text{aft}} - K_{\text{bfr}} = 7.842 \text{ J} - 3468 \text{ J}$$

$$\Delta K \approx -3460.1 \text{ J} (\approx -3460 \text{ J})$$

Portuguese

Conteúdo: SUPERLATIVO.

Objetivo: Estudantes pode ser:

- Determina qualidade grau elevado em alguém ou alguma coisa entre outros.

- Superlativo (parte 1) | Português On-line.

<https://www.youtube.com/watch?v=8QPHaxM96ag>

- Exercícios de superlativo (parte 2) | Português On-line.

<https://www.youtube.com/watch?v=7Rr1vZonJHQ>

- Click on [Superlativo](#) to read the worksheet.



(PDF) Aula online 8
- Superlativo.pdf

1) Complete as frases de acordo com o grau superlativo pedido:

- **O superlativo relativo de superioridade**

- Ela é a rapariga _____ que eu conheci. (bonita)
- O hoje é o dia _____ da minha vida. (feliz)

- **O superlativo relativo de inferioridade.**

- O meu carro é _____ rápido de todos.
- O Rui é _____ simpático do grupo.

- **O superlativo absoluto sintético**

- O exame foi muito difícil. De facto foi _____.
- Ele está muito gordo. De facto está _____.

- **O superlativo absoluto analítico**








a) Eles são todos _____ altos.

b) Aprender o nadar é _____ fácil.

- Click the Link to answer the questions of Superlativo.








<https://forms.gle/pSUZMH128hgZSHsn8>

Homework_Day 2 (11 May 2021)

Subject	Click on the Youtube Links	Things to Note
English	<p>Article-a-Day Week → AMAZING YOUNG PEOPLE</p> <p>How to get to your Article for Day 2 Click → www.readworks.org/student</p> <ol style="list-style-type: none"> 5. Enter class code 55QG3L 6. Click on YOUR NAME. 7. The default password is 1234. 8. Click on one of the two articles you will like to read. <p>Remember: Words are where humans store knowledge. So we build our knowledge by reading these articles. We will also increase our vocabulary, improve our reading stamina, and enjoy reading every day!</p> <p>Read an article a day to find out more about Amazing Young People in the world. After reading each article, type in the BOOK of KNOWLEDGE (minimum of 50 words) what new knowledge you have gained from the reading the article.</p> <p>Results Book of Knowledge Articles</p> <hr/> <p>Articles</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; width: 20%;">  <p>Remya Cleans Up 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>Billie Eilish Does It Her Way 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>From TikTok to the Grammys 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>Keeping the Lions Away 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>Greta Thunberg Is Worried About the Future 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>Teen Chefs Take Charge 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>Skateboard Stars 0 entries</p> </div> </div>	
Mathematics	Remainder Theorem Answer to Practise Now 8a, b,c	View Video https://youtu.be/DTMEOScd5Hw Try Practise Now 9 #1, 2
Chemistry	Answers to 5A and 5B Section Reviews Chemistry Chapter 12 Section and chapter Review answers	Check your answers. Copy all the answers into the notebook. Homework Chapter Review #1 to 8
Physics	Revise for Chapter 10 test on 12 and 13 May 2021	








<p>Portuguese</p>	<p>Conteúdo: ADVÉRBIO DE LUGAR. Objetivo: Estudantes pode ser:</p> <ul style="list-style-type: none"> • Identificar as palavras de advérbio de lugar. <p>- O quê são advérbios de lugar Português on-line</p> <p>https://www.youtube.com/watch?v=a6hAicDrQM</p>	<p>- Click the Link to answer the questions of Advérbios de lugar.</p> <p>https://forms.gle/ScmZ1vaXTJhwNzxJ6</p>
<p>PE / Health</p>	<p>Say No to Smoking or Alcohol Dr Vivien shares with SPMS students about the harmful effects of smoking and alcohol, and gives good advice on how to say "No!"</p> <p>https://www.youtube.com/watch?v=rLIFbASloA</p>	<p>What can you do when someone offers you a cigarette or alcohol?</p> <ol style="list-style-type: none"> 1. Just say _____ 2. Change the _____ 3. Tell them something they do not _____ 4. Tell a _____ 5. Walk _____ 6. Return the _____ 7. Use an _____ as an excuse 8. Avoid the _____ <p>Write the answers in your English Exercise book.</p>

Homework_Day 3 (12 May 2021)

Subject	Click on the Youtube Links	Things to Note
English	<p>Article-a-Day Week → AMAZING YOUNG PEOPLE</p> <p>How to get to your Article for Day 3 Click → www.readworks.org/student</p> <ol style="list-style-type: none"> 9. Enter class code 55QG3L 10. Click on YOUR NAME. 11. The default password is 1234. 12. Click on one of the two articles you will like to read. <p>Remember: Words are where humans store knowledge. So we build our knowledge by reading these articles. We will also increase our vocabulary, improve our reading stamina, and enjoy reading every day!</p> <p>Read an article a day to find out more about Amazing Young People in the world. After reading each article, type in the BOOK of KNOWLEDGE (minimum of 50 words) what new knowledge you have gained from the reading the article.</p> <p>Results Book of Knowledge Articles</p> <hr/> <p>Articles</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; margin: 5px;">  <p>Remya Cleans Up 0 entries</p> </div> <div style="text-align: center; margin: 5px;">  <p>Billie Eilish Does It Her Way 0 entries</p> </div> <div style="text-align: center; margin: 5px;">  <p>From TikTok to the Grammys 0 entries</p> </div> <div style="text-align: center; margin: 5px;">  <p>Keeping the Lions Away 0 entries</p> </div> <div style="text-align: center; margin: 5px;">  <p>Greta Thunberg Is Worried About the Future 0 entries</p> </div> <div style="text-align: center; margin: 5px;">  <p>Teen Chefs Take Charge 0 entries</p> </div> <div style="text-align: center; margin: 5px;">  <p>Skateboard Stars 0 entries</p> </div> </div>	
Mathematics	Remainder Theorem Answer to Practise Now 9 #2	View video https://youtu.be/2c4DGjiw_w0 Try Exercise 1C #1a,d and #2a,d
Chemistry	Answers to 5C section review	Check your answers. Copy all the answers into the notebook. Homework Chapter Review #9 to 16
Physics	Chapter 10 Test (Part 1/2) https://forms.gle/Btz8GtmcqZaVWWsX7	








<p>Portuguese</p>	<p>Conteúdo: ADVÉRBIO DE TEMPO.</p> <p>Objetivo: Estudantes pode ser:</p> <ul style="list-style-type: none"> • Identificar as palavras de advérbio de tempo. <p>- O que são advérbios de tempo Português online</p> <p>https://www.youtube.com/watch?v=a6hAiCiDrQM</p>	<p>Escreve e subline (underline) os Advérbio de tempo no esse diálogo.</p> <p>Situação: Marcando um encontro</p> <ul style="list-style-type: none"> – Quando podemos nos encontrar? Amanhã? – Infelizmente não posso amanhã, só no sábado. – De manhã ou de tarde? – De noite seria melhor para mim. – A que horas? – Às 18 horas seria perfeito. – Ótimo. Está combinado. No sábado, eu passo na sua casa às 18 horas. – Então até sábado. Tchau. – Tchau.
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Homework_Day 4 (13 May 2021)

Subject	Click on the Youtube Links	Things to Note
English	<p>Article-a-Day Week → AMAZING YOUNG PEOPLE</p> <p>How to get to your Article for Day 4 Click → www.readworks.org/student</p> <ol style="list-style-type: none"> 13. Enter class code 55QG3L 14. Click on YOUR NAME. 15. The default password is 1234. 16. Click on one of the two articles you will like to read. <p>Remember: Words are where humans store knowledge. So we build our knowledge by reading these articles. We will also increase our vocabulary, improve our reading stamina, and enjoy reading every day!</p> <p>Read an article a day to find out more about Amazing Young People in the world. After reading each article, type in the BOOK of KNOWLEDGE (minimum of 50 words) what new knowledge you have gained from the reading the article.</p> <p>Results Book of Knowledge Articles</p> <hr/> <p>Articles</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; width: 20%;">  <p>Remya Cleans Up 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>Billie Eilish Does It Her Way 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>From TikTok to the Grammys 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>Keeping the Lions Away 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>Greta Thunberg Is Worried About the Future 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>Teen Chefs Take Charge 0 entries</p> </div> <div style="text-align: center; width: 20%;">  <p>Skateboard Stars 0 entries</p> </div> </div>	
Mathematics	Remainder Theorem Answer to Exercise 1C #1d and #2d	View Video https://youtu.be/9l6OR0sqnP0 Copy Worked Example 10 and 11 into your Maths 1
Chemistry	Answers to 5D section review	Check your answers. Copy all the answers into the notebook. Homework Chapter Review #17 to 23
Physics	Chapter 10 Test (Part 2/2) https://forms.gle/yYEAAbTctA2pL6Xo59	

<p>Portuguese</p>	<p>Conteúdo: ADVÉRBIO DE MODO Objetivo: Estudantes pode ser:</p> <ul style="list-style-type: none"> • Identificar as palavras de advérbio de modo. <p>- O que são advérbios de modo Português On-line https://www.youtube.com/watch?v=sjLMd7LaKoQ</p>	<p>- Click the Link to answer the questions of Advérbios de modo https://forms.gle/Gze2YhSRa2Zs9iiz7</p>
<p>Devotion</p>	<p><u>Hope Beyond the Pandemic</u> https://www.youtube.com/watch?v=7i0zvM3HYFw HOPE Beyond The PANDEMIC! Other than PEACE above the Pandemic, hope is so important as well... to help us to see beyond our present circumstances that we are in. May you all be blessed from this short little message from ~ Emma, Caleb and Samuel!</p>	<p>Write down the Bible verses mentioned in the video.</p> <ol style="list-style-type: none"> 1. Romans 8: _____ 2. Romans 15: _____ 3. Luke _____:13 4. Psalms 130:_____
<p>Music</p>	<p>My Hope is in the Lord (Cave Quest VBS Music Video) https://www.youtube.com/watch?v=tJePCzTaQo4</p>	<p>Write the bible verses in your English exercise book</p>

Homework_Day 5 (14 May 2021)

Subject	Click on the Youtube Links	Things to Note
<p>English</p>	<p>Article-a-Day Week → AMAZING YOUNG PEOPLE</p> <p>How to get to your Article for Day 5 Click → www.readworks.org/student</p> <ol style="list-style-type: none"> 17. Enter class code 55QG3L 18. Click on YOUR NAME. 19. The default password is 1234. 20. Click on one of the two articles you will like to read. <p>Remember: Words are where humans store knowledge. So we build our knowledge by reading these articles. We will also increase our vocabulary, improve our reading stamina, and enjoy reading every day!</p> <p>Read an article a day to find out more about Amazing Young People in the world. After reading each article, type in the BOOK of KNOWLEDGE (minimum of 50 words) what new knowledge you have gained from the reading the article.</p> <p>Results Book of Knowledge Articles</p> <hr/> <p>Articles</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="width: 25%; text-align: center;">  <p>Remya Cleans Up 0 entries</p> </div> <div style="width: 25%; text-align: center;">  <p>Billie Eilish Does It Her Way 0 entries</p> </div> <div style="width: 25%; text-align: center;">  <p>From TikTok to the Grammys 0 entries</p> </div> <div style="width: 25%; text-align: center;">  <p>Keeping the Lions Away 0 entries</p> </div> <div style="width: 25%; text-align: center;">  <p>Greta Thunberg Is Worried About the Future 0 entries</p> </div> <div style="width: 25%; text-align: center;">  <p>Teen Chefs Take Charge 0 entries</p> </div> <div style="width: 25%; text-align: center;">  <p>Skateboard Stars 0 entries</p> </div> </div>	
<p>Mathematics</p>	<p>Factor Theorem</p>	<p>View video https://youtu.be/9-6wFXQr5d8 Try Practise Now 10 and 11</p>

<p>Chemistry</p>	<p>Chapter 12 Open book Test Within 60 minutes.</p>	<p>Click on this link (Grade 12 Chemistry Chapter 12 Test student) to see the instructions and questions. Answer all questions in the chemistry notebook. After 60 minutes, click https://forms.gle/oUQn12bPCEpXiM5u6 to submit your answers online If you cannot submit online, you are to come to Mrs Chan's place on 13May 1pm to 2pm to submit your answers.</p>
<p>Physics</p>	<p>Readworks.org How to get to your Science article – Crashing, Jumping Falling Click → www.readworks.org/student</p> <ol style="list-style-type: none"> 1. Enter class code 55QG3L 2. Click on YOUR NAME. 3. The default password is 1234. 4. Click on the title below and answer questions and submit. <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div data-bbox="407 947 540 1157">  </div> <div data-bbox="548 947 860 1060"> <p>Crashing, Jumping, Falling Physical Science 8th 1160L 984 Words Nonfiction</p> </div> <div data-bbox="1203 953 1406 1100" style="text-align: right;"> <p>Whole Class Start: May 14, 2021 Due Date: May 30, 2021 Q, 🔊</p> </div> </div>	
<p>Portuguese</p>	<p>Conteúdo: 100 FRASES EM PORTUGUÊS E INGLÊS Objetivo: Estudantes pode ser:</p> <ul style="list-style-type: none"> • Traduzir as frases em Português e Inglês. <p>- 100 frases basicas de conversação em Inglês e Português. https://www.youtube.com/watch?v=GIWc-EXEQaw</p>	<p>- Click the link to answer the questions. https://forms.gle/MxdJXKfdtLZL4zHP6</p>