

Summer half term two 2021

Year 9 Technology

| Lesson | Instructions | Resources | Curriculum | | | | | | | | | | | | | | | | | | |
|---|---|--|------------|----------------------|-----------------------------|--|---|---|--|--|--------------------------|--|---|---|---|------------|--------------------------------------|---|------------|---|---|
| 1 | <p>Marble Run challenge, open the pdf file and follow the challenge lesson step by step</p> <p>Challenge: Marble Run</p> <table border="1"> <thead> <tr> <th></th> <th>Content</th> <th>Time/Links/Resources</th> </tr> </thead> <tbody> <tr> <td>Warm Up for Learning</td> <td>Watch the Video from Dyson introducing the challenge</td> <td>https://www.youtube.com/watch?v=c8ND6vDgP8Q 10 minutes</td> </tr> <tr> <td>What you will learn by the end of this challenge</td> <td>To demonstrate understanding of energy in relation to potential and kinetic energy. How to create a structure to allow the marble to move but it slow it down so it meets the challenge run time of 60 seconds</td> <td>Plain and lined paper (To record results) Marble or small ball (Malteaser) Cardboard or other packaging materials Sticking tape</td> </tr> <tr> <td>Explore the topic</td> <td>Read through the challenge sheet and discuss with people at home how you would make your marble run and get permission from your parents. Review challenge sheet and list the things you will need</td> <td>10 minutes planning time to collect resources</td> </tr> <tr> <td>Main activity and Show your learning</td> <td>Build your marble run and test it whilst completing the mini STEAM activity sheets. If you are delighted with your result you can send my your video or photo for us to share on our Instagram and twitter pages for school</td> <td>50 minutes</td> </tr> <tr> <td>Cool Down: How did I do today</td> <td>Take photos or video of your final efforts and then answer the evaluation questions</td> <td>10 minutes</td> </tr> </tbody> </table> <p>Postcard Extension Task Send in a photo of your marble run.</p> <p>You Tube Teacher talk through the challenge This Link is Mrs Barnard talking through the challenge and offers so tips and tricks to help you in your challenge</p> <p>Literacy Keywords Gravity The force that attracts a body towards the centre of the earth, or towards any other physical body having mass. Potential energy The energy possessed by a body by virtue of its position relative to others, so gravity and its affect on the marble Kinetic energy Energy which a body possesses by virtue of being in motion. contact forces Force exerted between two objects when they are touching. non-contact forces The push or pull acting between objects that are not physically touching when they interact. Newtons law of Motion extension link</p> | | Content | Time/Links/Resources | Warm Up for Learning | Watch the Video from Dyson introducing the challenge | https://www.youtube.com/watch?v=c8ND6vDgP8Q 10 minutes | What you will learn by the end of this challenge | To demonstrate understanding of energy in relation to potential and kinetic energy. How to create a structure to allow the marble to move but it slow it down so it meets the challenge run time of 60 seconds | Plain and lined paper (To record results) Marble or small ball (Malteaser) Cardboard or other packaging materials Sticking tape | Explore the topic | Read through the challenge sheet and discuss with people at home how you would make your marble run and get permission from your parents. Review challenge sheet and list the things you will need | 10 minutes planning time to collect resources | Main activity and Show your learning | Build your marble run and test it whilst completing the mini STEAM activity sheets. If you are delighted with your result you can send my your video or photo for us to share on our Instagram and twitter pages for school | 50 minutes | Cool Down: How did I do today | Take photos or video of your final efforts and then answer the evaluation questions | 10 minutes | <p>PDF file Video explaining challenge Plain and lined paper (To record results)</p> <p>Marble or small ball. (Malteaser) Cardboard or other packaging materials Sticking tape</p> | <p>Discover Explore Share Innovate Using knowledge of learning to date across Technology alongside science maths and art.</p> |
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Please email any queries and completed work to **Mrs Barnard**

Melissa.barnard@monkseaton.org.uk