







| DU 9. IMAGES | | | | | |
|--|-------------|--------------------------|---|---|--|
| CAPTURA | REFERENCIA | NOME | AUTORÍA | REPOSITORIO/URL | LICENZA |
|  | Figure 1.20 | 9Atom Sym | Orion1961 | https://commons.wikimedia.org/wiki/File:Atom_sym.png |  CC BY-SA 4.0 |
|  | Figure 9.1 | 9push-pull | BruceBlaus | https://commons.wikimedia.org/wiki/File:Home_Care_Carrying_Pushing_Pulling.png |  CC BY-SA 4.0 |
|  | Figure 9.2 | 9Four Fundamental forces | Kvr.lohith | https://commons.wikimedia.org/wiki/File:FOUR_FUNDAMENTAL_FORCES.png |  CC BY-SA 4.0 |
|  | Figure 9.3 | 9hookes law springs | Svjo | https://commons.wikimedia.org/wiki/File:Hookes-law-springs.png |  CC BY-SA 3.0 |
|  | Figure 9.4 | 9stress-strain1 graph | Moondoggy (talk) (Uploads) | https://en.wikipedia.org/wiki/File:Stress-strain1.png |  CC BY-SA 3.0 |
|  | Figure 9.5 | 9spring balance | Theresa knott | https://commons.wikimedia.org/wiki/File:Spring_balance.PNG |  CC BY-SA 3.0 |
|  | Figure 9.6 | 9Sir Isaac Newton | Wellcome Collection gallery (2018-04-03): | https://commons.wikimedia.org/wiki/File:Sir_Isaac_Newton._Wellcome_V0006785EL.jpg |  CC BY 4.0 |
|  | Figure 9.7 | 9hello planet earth | GuderianE | https://freessvg.org/planet-earth |  CC0 1.0 Public Domain Dedication |
|  | Figure 9.8 | 9friction | Vishakha.malhan | https://commons.wikimedia.org/wiki/File:Friction_force.jpg |  CC BY-SA 4.0 |
|  | Figure 9.9 | 9equilibrium | Parutakupiu | https://commons.wikimedia.org/wiki/File:Tir_a_la_corde_equilibre.svg |  CC0 1.0 Public Domain Dedication |
|  | Figure 9.10 | 9friction effect | piqsels | https://www.piqsels.com/es/public-domain-photo-fopiqselswun | Descarga Gratuita Free Download |

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|--|-------------|---------------------|---------|---|---|
|  | Figure 8.10 | 8reference frame 2D | MikeRun | https://commons.wikimedia.org/wiki/File:Example-position-2d.svg |  CC BY-SA 4.0 |
|  | Figure 8.11 | 8reference frame 1D | MikeRun | https://commons.wikimedia.org/wiki/File:Example-position-1d.svg |  CC BY-SA 4.0 |
|  | Figure 8.12 | 8graph ULM | MikeRun | https://commons.wikimedia.org/wiki/File:Uniform-motion.svg |  CC BY-SA 4.0 |
|  | Figure 8.13 | 8graph types | Wallusy | https://pixabay.com/es/illustrations/gr%C3%A1ficos-mesas-grafico-estad%C3%ADsticas-6246450/ | Pixabay License Gratis para usos comerciales No es necesario reconocimiento |









DU 9. VIDEO

| | | | | | |
|--|-----------|--------------------------------------|---|---|--|
|  | Video 9.1 | How objects interact | FuseSchool - Global Education | https://www.youtube.com/watch?v=48BeaFwV374&t=1s | Creative Commons Attribution licence (reuse allowed) |
|  | Video 9.2 | 4 fundamental forces | Big History MOOC | https://www.youtube.com/watch?v=6wpM74iDy90 | Creative Commons Attribution licence (reuse allowed) |
|  | Video 9.3 | video resultant force | FuseSchool - Global Education | https://www.youtube.com/watch?v=yg3bTMCAnsM | Creative Commons Attribution licence (reuse allowed) |
|  | Video 9.4 | video Who is Isaac Newton. Brain Pop | Amazing Science | https://www.youtube.com/watch?v=s0wFHYEmq6M&t=1s | Creative Commons Attribution licence (reuse allowed) |
|  | Video 9.5 | 9video Newton's second Lawlaw | FuseSchool - Global Education | https://www.youtube.com/watch?v=0efXaBr_JcU | Creative Commons Attribution licence (reuse allowed) |
|  | Video 9.6 | video force and motion | Amazing Science | https://www.youtube.com/watch?v=nG0sylz4Xvw | Creative Commons Attribution |

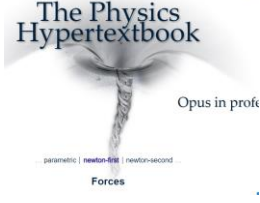

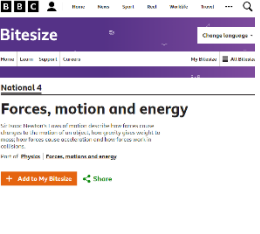
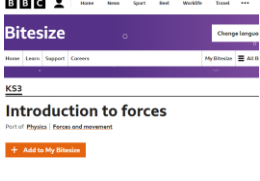


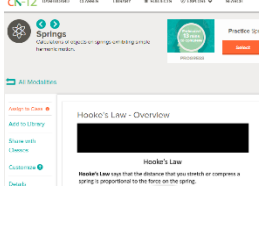

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|--|-----------|-----------------------------------|-------------------------------------|---|--|
| | | | | | licence (reuse allowed) |
|  | Video 9.7 | video Mass and weight | TicTacLearn English | https://www.youtube.com/watch?v=HyslO6etMwQ | Creative Commons Attribution licence (reuse allowed) |
|  | Video 9.8 | Video how to make a friction fire | | https://www.youtube.com/watch?v=HyslO6etMwQ | Creative Commons Attribution licence (reuse allowed) |


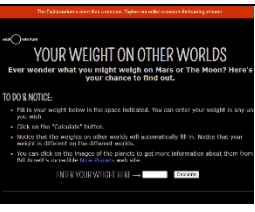
DU 9. SIMULACIONES

| | | | | |
|--|---|--|---|---|
|  | 9phet_simulations_Masses_and_springs | by PhET Interactive Simulations, University of Colorado Boulder/ | https://phet.colorado.edu/sims/html/masses-and-springs/latest/masses-and-springs_en.html |  CC BY 4.0 |
|  | 9phet_simulations_Forces_and_Motion | by PhET Interactive Simulations, University of Colorado Boulder/ | https://phet.colorado.edu/sims/html/forces-and-motion-basics/latest/forces-and-motion-basics_en.html |  CC BY 4.0 |
|  | 8sim Javalab Spring scales | By JavaLab | https://javalab.org/en/spring_scales_en/ |  CC BY-SA |
|  | 9sim Javalab gravity difference on several planet | By JavaLab | https://javalab.org/en/gravity_difference_on_several_planet_en/ |  CC BY-SA |



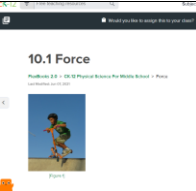
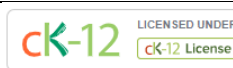


DU 8. WEB RESOURCES / ACTIVITIES

| | | | |
|--|---|---|--|
|  | <p>The Physics Hypertextbooks. <u>Forces</u></p> | <p><u>The Physics Hypertextbook</u> <u>©1998–2022 Glenn Elert</u> <u>Author, Illustrator, Webmaster</u></p> | <p>https://physics.info/newton-first/</p> |
|  | <p>9Every Time 'May The Force Be With You' Is Said In Star Wars</p> | <p><u>Super News Live</u></p> | <p>https://www.youtube.com/watch?v=VH83SsL_fIQ</p> |
|  | <p>9Forces motion and energy. Balanced and unbalanced forces</p> | <p><u>BBC Bitesize</u> <u>National 4</u></p> | <p>https://www.bbc.co.uk/bitesize/guides/z78nb9q/revision/3</p> |
|  | <p>9 Introduction to forces</p> | <p><u>BBC Bitesize</u> <u>KS3</u></p> | <p>https://www.bbc.co.uk/bitesize/topics/z4brd2p/articles/zs3896f</p> |
|  | <p>9Newton's Laws Lesson 2. Drawing Free-body diagrams</p> | <p><u>the Physics Classroom</u></p> | <p>https://www.physicsclassroom.com/class/newtlaws/Lesson-2/Drawing-Free-Body-Diagrams</p> |
|  | <p>9Educaplan Ley de Hooke</p> | <p><u>Educaplan.org</u></p> | <p>https://www.educaplan.org/game/ley-de-hooke</p> |
|  | <p>9 Hooke's Law overview</p> | <p></p> | <p>https://www.ck12.org/c/physics/springs/enrichment/Hookes-Law-Overview/?collectionCreatorID=3&conceptCollectionHandle=physics-%3A%3A-springs&collectionHandle=physics</p> |

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| | | | |
|--|---------------------------------------|--|---|
|  | 9 Physics for kids. Laws of motion | DUCKSTERS | https://www.ducksters.com/science/laws_of_motion.php |
|  | 9 Your weight in other worlds | The Exploratorium | https://www.exploratorium.edu/ronh/weight/ |

DU 9. TEXTBOOKS / LESSONS/ARTICLES

| | | | | |
|--|----------------------------------|--|---|---|
|  | 9 Newton's Second Law | Campermon's physics resources | https://www.tes.com/teaching-resource/newton-s-2nd-law-f-equals-ma-12479914 |  |
|  | 9 CK-12 FlexBooks2.0 Force | CK-12 Foundation | https://flexbooks.ck12.org/cbook/ck-12-middle-school-physical-science-flexbook-2.0/section/10.1/primary/lesson/force-ms-ps/ |  |
|  | 9 Lesson newtons 2 law | Sal Khan | https://www.oercommons.org/courses/newton-s-second-law-of-motion-2 |  |