

Verkefnahefti

Kraftar

C:\Users\thorunno2889\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\66MXRVMU\MC900240869[1].wmf

Nafn \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Kraftur eru áhrif sem verka á hlut þannig að

* hann tekur að hreyfast,
* hættir að hreyfast
* breytir hraða sínum.

Hvað þarf maður að vita um kraft til að geta lýst honum?

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Vigtið þessa hluti

stein, tennisbolta, borðtenniskúlu, grjónapúða, körfubolta og skráið þyngd hér að neðan.

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| --- | --- | --- | --- | --- | --- |
|  | tennisbolti | borðtenniskúla | grjónapúði | fjöður | körfubolti |
| Þyngd í gr. |  |  |  |  |  |

Ef þú hendir þessum hlutum niður af háum vegg, hver þeirra fellur hraðast?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Af hverju? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Gerðu tilraun og láttu þessa hluti falla

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|  | steinn | tennisbolti | borðtennis-kúla | grjónapúði | fjöður | körfubolti |
| Tími í sek. |  |  |  |  |  |  |

Hver var niðurstaðan? Hafðir þú rétt fyrir þér? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hvað er þyngdarkraftur?

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Núningskraftur

Finnið ykkur einn bíl, bolta og eina bók.

Rennið þeim eftir flísum, teppi og gólfdúk

Mælið þá lengd sem bíllinn og bókin renna (passið að ýta alltaf jafn fast á eftir bílnum)

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|  | Flísar | Teppi | Gólfdúkur |
| Bíll |  |  |  |
| Bók |  |  |  |
| Bolti |  |  |  |

Hvar fer bíllinn hraðast?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

En bókin?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hvaða undirlag heldur þú að hafi mestan núningskraft?

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Útskýrðu núningskraft

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Teiknaðu skýringarmynd sem sýnir núningskraft.

Veistu svarið?

1. Af hverju setja bíleigendur vetrardekk undir bílana sína á veturna?

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1. Af hverju veltur bolti ekki eins vel á háu grasi og sléttu malbiki?

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1. Hvers vegna er sett olía og smurfeiti notuð á vélar í bílum?

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1. Hvernig breytir ísing á gangstéttum núningskraftinum milli steypunar og skóna okkar?

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1. Hvað uppfinning getur hjálpað okkur að yfivinna núningskraft?

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Loftmótstaða

Teiknaðu tvær myndir önnur á að vera af hlut sem veitir mikla loftmótstöðu og hin litla loftmótstöðu.

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Teiknaðu flugvélavæng og lýstu því hvernig lyftikrafturinn myndast þegar loftið streymir um vænginn

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Flýtur og sekkur

Finndu þér nokkra hluti og athugaðu hvort hann flýtur eða sekkur. Giskaðu first og athugaðu svo hvað kemur í ljós

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| Hlutur | Flýtur | Sekkur |
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Hvers vegna fljóta hlutir?

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Hvert er lögmál Akrimedesar um flotkraft?

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Unnið með hliðsjón af námsefnu Auðvitað 2.