

$\phi_G = \int_S g \cdot dA$
 $g = \frac{GM}{r^2}$
 $g = -\frac{GM}{r^2} \hat{r} = -\frac{GM}{r^2} (\cos\theta \hat{r} + \sin\theta \hat{\theta})$
 $\hat{r} = \frac{x\hat{i} + y\hat{j} + z\hat{k}}{r}$
 $\hat{\theta} = \frac{y\hat{i} - x\hat{j}}{r \sin\theta}$
 $\hat{\phi} = \frac{z\hat{i} - x\hat{k}}{r \sin\theta}$
 $\phi_G = -\frac{GM}{r} + C$
 $g = -\nabla\phi_G = \frac{GM}{r^2} \hat{r}$
 $g = \frac{GM}{r^2} \hat{r}$
 $V = \sqrt{\frac{2GM}{r}}$



SOLAN HARMONY

$H = \sum_{i=1}^N \frac{p_i^2}{2m_i} + V(x_1, x_2, \dots, x_N)$
 $H = \sum_{i=1}^N \frac{p_i^2}{2m_i} + V(x_1, x_2, \dots, x_N)$
SCIENCE

THE PRINCIPLE OF THE LEVER

ROTATION MOTION
BALANCE

This week, students transformed their science class into a dizzying display of balance and precision! More than a circus act, this activity is physics in motion. Students had a first-hand opportunity to explore how applying force at different points of a lever can affect movement. With a lot of laughter and careful practice, all the students were able to achieve some success -- a few even managed to master their technique!



“Embracing Diversity, Creating Harmony: Students Unite for Success”

