Flipping Physics Lecture Notes:
AP Physics C: Rotational vs. Linear Review (Mechanics)
https://www.flippingphysics.com/apc-rotational-vs-linear-review.html

Name:	Linear:	Rotational:
Displacement	$\Delta\vec{x} = x_f - x_i$	$\Delta\vec{\theta} = \theta_f - \theta_i$
Velocity	$\vec{v}_{avg} = \frac{\Delta\vec{x}}{\Delta t}$ & $\vec{v}_{inst} = \frac{d\vec{x}}{dt}$	$\vec{\omega}_{avg} = \frac{\Delta\vec{\theta}}{\Delta t}$ & $\vec{\omega}_{inst} = \frac{d\vec{\theta}}{dt}$
Acceleration	$\vec{a}_{avg} = \frac{\Delta\vec{v}}{\Delta t}$ & $\vec{a}_{inst} = \frac{d\vec{v}}{dt}$	$\vec{\alpha}_{avg} = \frac{\Delta\vec{\omega}}{\Delta t}$ & $\vec{\alpha}_{inst} = \frac{d\vec{\omega}}{dt}$
Uniformly Accelerated Motion (UAM) or Uniformly Angularly Accelerated Motion (UαM)	$v_f = v_i + at$ $x_f = x_i + v_i t + \frac{1}{2}at^2$ $v_f^2 = v_i^2 + 2a(x_f - x_i)$ $x_f - x_i = \frac{1}{2}(v_f + v_i)t$	$\omega_f = \omega_i + \alpha t$ $\theta_f = \theta_i + \omega_i t + \frac{1}{2}\alpha t^2$ $\omega_f = \omega_i + 2\alpha(\theta_f - \theta_i)$ $\theta_f - \theta_i = \frac{1}{2}(\omega_f + \omega_i)t$
Mass	Mass	$I_{particles} = \sum_i m_i r_i^2$ $I_{object\ with\ shape} = \int r^2\,dm$
Kinetic Energy	$KE_{translational} = \frac{1}{2}mv^2$	$KE_{rotational} = \frac{1}{2}I\omega^2$
Newton's Second Law	$\sum\vec{F} = m\vec{a}$ & $\sum\vec{F} = \frac{d\vec{p}}{dt}$	$\sum\vec{\tau} = I\vec{\alpha}$ & $\sum\vec{\tau} = \frac{d\vec{L}}{dt}$
Force / Torque	Force	$\vec{\tau} = \vec{r} \times \vec{F}$
Power	$P_{translational} = \frac{dW}{dt} = \vec{F} \bullet \vec{v}$	$P_{rotational} = \frac{dW}{dt} = \vec{\tau} \bullet \vec{\omega}$
Momentum	$\vec{p} = m\vec{v}$	$\vec{L}_{particle} = \vec{r} \times \vec{p}$ $\vec{L}_{object\ with\ shape} = I\vec{\omega}$

Thank you to Aarti Sangwan for pointing out that I didn't include a rotational form of work in the video.

Name:	Linear:	Rotational:
Work (constant force)	$W = \vec{F} \cdot \Delta\vec{r} = F\Delta r\cos\theta$	$W = \vec{\tau} \cdot \Delta\vec{\theta}$
Work (non-constant force)	$W = \int_{x_i}^{x_f} F_x\,dx$	$W = \int_{\theta_i}^{\theta_f} \tau\,d\theta$
Net Work-Kinetic Energy Theorem	$W_{net} = \Delta KE = \frac{1}{2}mv_f^2 - \frac{1}{2}mv_i^2$	$W_{net} = \Delta KE = \frac{1}{2}I\omega_f^2 - \frac{1}{2}I\omega_i^2$

A little bonus: Look what happens when we combine a couple of the above formulas:

$$W_{net} = \vec{\tau}_{net} \cdot \Delta\vec{\theta} = I\alpha\Delta\theta = \frac{1}{2}I\omega_f^2 - \frac{1}{2}I\omega_i^2 \Rightarrow 2\alpha\Delta\theta = \omega_f^2 - \omega_i^2 \Rightarrow \omega_f^2 = \omega_i^2 + 2\alpha\Delta\theta \text{ (UαM!)}$$