Characteristics of Lenses

(Most zoom lenses can be adjusted to show any of these characteristics)	**Wide angle lens**	**Normal lens**	**Telephoto lens**
Typical designations (35mm equivalent)	15mm - 20mm ("Fish eye" lens) 28mm - 35mm (Wide angle lens)	45mm - 60mm (Normal lens)	70 mm-135mm ("Portrait lens") 200mm - 1000mm or more (Telescopic telephoto lenses)
Field of view	Wide. You capture a larger-than-normal portion of what the human eye would see, including peripheral vision area.	Medium. You capture pretty much the same field of view that the human eye sees (*not* including our peripheral vision area).	Narrow. You capture a much smaller, selected portion of the scene than the human eye normally sees.
Focus and depth of field	Forgiving. Almost everything anywhere along the Z axis remains in focus, even when moving.	Compromise	Unforgiving, very selective focus. Hard to keep in focus objects moving along the Z axis.
Camera movement blur	Forgiving, camera blur minimized. Hand-held usually fine, even at moderate shutter speeds.	Compromise	Unforgiving, camera blur maximized. Use camera support or very fast shutter speeds.
A handy, rough rule of thumb is never to hand-hold a camera at a shutter speed lower than the focal length of the lens. For example, if using a 30mm lens you can use a shutter speed of about 1/30 or faster and get away with it. When using a 250mm lens, you need a shutter speed of 1/250 or faster.			
Optical distortion: Objects	Fish-eye (convex surveillance mirror look). Straight lines may bend.	Very little distortion - like the human eye.	Flattened look. Straight lines stay straight.
Optical distortion: Faces	Bulbous, unflattering faces		Flattering for faces
Depth of Field	All distances along the Z axis, regardless of distance from camera, are in relative focus		Usually only small distance along the Z axis is in focus (i.e., subject in focus, background blurry).
Distance distortion	Distances along the Z axis seem greater: distant objects appear very small, near objects appear very large.		Distances along the Z axis seem lesser: distant objects look the pretty much the same size as near objects.