fundamentals of instrumentation	
Stabilization = correct grasp and fulcrum	more bends in the shank, more area specific
instruments ADAPTATION, ANGULATION, ACTIVATION	
# indicates the specific design of the working end and the are of the dentition indicated for use	
area specific	only adapts to certain surfaces in certain areas of the mouth
universal	used on any area of the mouth (both anterior and posterior)
weight	lighter handles enhance TACTILE SENSITIVITY and lessen fatigue related to a tighter grasp, ideally less than 15.0g
diameter	6.5mm- 10mm. thin handles can lead to RSI (repetitive stress injury). ergonomic instruments have 10mm diameter
texture	textured provide better control, increase tactile sensitivity
shape	straight: anterior teeth. angled complex: proximal surfaces of posterior teeth
length	most instruments: 35-40mm
rigidity	stronger: remove calculus. flexible: remove fine deposits of calculus

PROBING	
Design, Characteristics	calibrated in millimeter increments (NOT all probes have the same marking patterns)
	blunt, rod-shaped working that may be circular or rectangular in cross section
	working-end and the shank meet in defined angle that is >90 degrees
	stainless steel, titanium or plastic
Function	**MAIN** detect periodontal pockets to determine the health status of the periodontist
	measure clinical attachment loss
	measure extent of recession of the gingival margin
	measure the width of the attached gingiva
	measure the size of intramural lesions
	assess bleeding on probing

PROBING (cont)	
	determine mucogingival relationship
	monitoring the response of the periodontium to treatment
Probing depth	the distance in millimeters from the gingival margin to the base of the sulcus or periodontal pocket as measures with a probe
	Base of sulcus is at the *junctional epithelium*
	round up to nearest full millimeter
Healthy State	1-3 mm
	the probe touches the tooth near the CEJ at the JE
Disease State	greater than 3 mm
	probe tip touches somewhere below the CEJ

MIRROR		
function of the mirror	1. indirect vision	to see tooth surfaces or intramural structures that CANNOT be seen using direct vision
	2. retraction	hold the pt's cheek, lip or tongue see tooth surfaces
	3. indirect illumination	reflect light onto a tooth surface in a dark area o the mouth
	4. transillu-mination	directing light off to the mirror surface and through the ANTERIOR TEETH (helps aid in detection of inter proximal caries) LOOKING DIRECTLY ON THE TOOTH

CLASSIFICATION OF INSTRUMENTS	
assessment	mirror, explorer, probes
treatment	scalers, hoes, chisels, files, curets (universal/area specific), powered scalers

N137 SCALER
crowns ONLY
Universal in design, area specific in use
anterior ONLY (sextant 5 mostly)
all surfaces (BEST in proximal surfaces)

N137 CURET
BOTH crowns and roots
Universal in design, area specific in use
Anteriors
ALL SURFACES

204SD "small and dainty"
Scaler
Crowns ONLY
Universal
BOTH anterior and posterior
ALL SURFACES (BEST in proximal premolar and anterior)

N135
scaler
crowns ONLY
universal
BOTH posterior and anterior
ALL SURFACES (BEST in proximal of posterior)

Columbia 13/14
curet
crown and roots
universal
BOTH posterior and anterior
ALL surfaces

Gracey 11/12
curet
crowns and roots
area specific
posterior ONLY
lingual, medial, buccal (everything but the distal)
outer working edge- fattest from the handle

Gracey 13/14
curet
crowns and root
area specific
posterior ONLY
distal surfaces ONLY
inner edge- closest to the handle

Gingival Pocket
Gingival enlargement and coronal migration of the gingival margin
No loss of clinical connective tissue attachment
Junctional epithelium has not migrated apically

Periodontal Pocket
A gingival sulcus that has been deepened by disease; depth is greater than 3mm
Forms from apical migration of the junctional epithelium and of periodontal fibers

EXPLORER	
Function	determine the health of the periodontal tissues, tooth anatomy and the texture of tooth surfaces.
	detect by TACTILE means, the texture and character if tooth surfaces debone during and after periodontal instrumentation to assess the programs and completeness of instrumentation
Design	flexible metal conduct vibrations form the working end to the clinicians fingers.
	working- end is 1 to 2 mm in length and referred to as the explorer tip
11/12 Explorer	side of the explorer tip is applied to the tooth surface
Surface Assessment	supragingival (above the gingival) subgingival (below the in the gingival margin)
Explorer Types	Shepard hook, straight, curved, pigtail and cowhorn, orban-type, 11/12 type

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