# Casts and Impressions

## People, vehicles and objects leave evidence of their presence at the crime scene in the form of a mark or an imprint.

# Types of impressions

## Patent – visible impressions produced when an object moves through

##### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Latent – impressions that are hidden to the eye but can be seen using

##### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Plastic – impressions left in soft material like mud and soil

# Class Evidence - evidence that can lead to a group.

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Individualized evidence – evidence that is unique and lead to a specific source.Distinguishing characteristic like a worn spot or crack

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Shoe impressions include:

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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# Shoe wear patterns

## Shoes wear out differently on different people

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Heel walking vs. toe walking

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Point of toes when walking

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Activities

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Injuries

# Gaits and Tracks

## Gait – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Limps – injuries cause an asymmetrical gait

## Length of stride

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Trails can indicate movement direction

## Information that you can learn from gaits and tracks

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Collections of shoe impression evidence

## Photographing evidence

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Fill the camera’s viewfinder with the impression

### Take photos that are perpendicular and also photos that are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### If using a digital camera – check quality of photos and retake pictures if you have to

### Old-Fashioned film cameras are used by CSI more often because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Lifting latent impressions

### Bare feet leave body oil.

#### Can use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Shoes leave dirt and plastic from shoe

#### Electrostatic print lifting – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

#### Gel lifting – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Luminol finds blood impressions of shoe prints

## Casting plastic impressions

### A cast is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### To cast impressions in sand or dirt spray hair spray on footprint first, then use plaster of paris.

### To cast an impression in snow spray a fine mist of wax on first, then use dental stone

## Foot Length and Shoe Size

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Sneakers are smaller than work boots

### Identification of the make and model of shoe and manufacturer can tell the size of the foot.

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Tire Tread and Impressions

## Indicate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Skids can help tell who is at fault in an accident

## Examiners look for

### Tread patterns and measurements to identify the type of tie and perhaps the make and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

### Nature of impression to see how the car was driven

## Tires can have latent, patent and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ impressions from cars.

# Anatomy of a tire

## Image result for tire tread images\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_are elevated regions.

## Grooves are indentations

## The purpose of ridges and grooves is to help channel water away from the tire to increase traction.

## Every model of tire is unique.

## Tread patterns are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Ribs, ridges and grooves are counted

## Ink impressions are made of tire impressions

# Image result for tire wheelbase imagesIdentifying a vehicle

## Sometimes tread patterns aren’t enough.

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the measure of the tread from the center of the front tires.

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the distance between front and back tires

## Turning diameter is the size of the tightest circle that can be driven.

# Establishing Car Movements from tire marks.

## Vegetation is disturbed as a vehicle enters or exits.

## Debris patterns cast off by a moving vehicle.

## Splash patterns created as a vehicle moved through a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Substance transfer and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_leakage

## Tire marks.

# 3 Types of Tire marks

### Image result for tire skidmark imagesSkid\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

#### Formed when vehicle brakes suddenly and wheels lock.

#### Provide evidence of distance of when the brakes were applied.

#### Calculation of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can be made.

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_Marks

#### Image result for tire yaw marks imagesProduced when a vehicle travels in a curved path quickly and skids.

#### Tire tread surface melts from the extra \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and increased temperatures.

#### Audible squeal and smoke occurs.

### Tire scrubs

#### Produced by a damaged or overloaded tire or tires during/after impact

#### Curved and irregular width

#### Might have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

#### This can help determine the area of impact.

# Dental Impressions

## Perpetrators will occasionally leave a bite mark

## Dental impressions are considered to be individualized evidence

### Image result for human dental impressionsNumber of teeth

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Alignment of teeth

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Crowns and caps

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Wear patterns

## Development of teeth

### 20 primary teeth start emerging at \_\_\_\_\_\_\_\_\_\_\_\_\_months

### 32 adult teeth started at \_\_\_\_\_\_\_\_\_\_\_\_\_\_ years

### 4 wisdom teeth at \_\_\_\_\_\_\_\_\_\_\_\_\_\_ years.

### Pathologists can determine the rough age of an individual by examining teeth

