

## Bite Mark Impressions



### Materials:

Small Styrofoam plates (1 per student)

Permanent Markers (1 per student)

Rulers (1 per student)

Assortment of soft candies (Swedish fish, orange slices, Laffy Taffy, circus peanuts, etc.)

Overhead Transparencies (Cut into fourths)

Timer

### Directions:

1 - Discuss slide 1 of the presentation and watch the video related to bite mark evidence.

2 - Complete Part 1: Make an Impression

- Distribute Styrofoam plates and permanent markers to each student. Instruct students to bend the plate in half so that the top of the plate is on the inside. They need to label one half with "maxilla" and one half with "mandible".
- Demonstrate how to make a bite mark impression on the plate. Students will need to put the folded plate into their mouth as far as possible and bite down on it to make a good impression. They should not bite too deep as to break through the plate.
- Have students unbend the plate and use a ruler to make the required measurements for width and depth of the impressions on both jaws. They will also need to note any unique characteristics they observe, such as slanted teeth, spaces, evidence of braces, etc.

3 - Complete Part 2: Tasty Testing

- Pass out one piece of one type of soft candy to each student.
- Instruct students to gently bite into each piece of candy in order to make an impression, but not too hard to bite it in half.
- Have the students record a rating for the quality of the impression (poor, fair, good) along with their observations, such as candy sticking to their teeth or whether or not it was too hard/soft to make a good impression.
- Repeat the testing with the other types of soft candy available.

NOTE: Circus peanuts and Laffy Taffy seemed to work the best for our impressions.

### Challenge (Optional)

To prepare for the challenge, provide each student with one circus peanut. Have them bite into it (with the top of the candy facing into their mouth) to leave an impression and label the top with MX for maxilla and MN for mandible. Have students hand in their candy piece. Use a permanent marker to write a number on the bottom of the candy. You will want to keep a list of student names and numbers to check the challenge answers.

For the challenge, divide students into groups of 3-4 students. For each group, have them find all the correct candy pieces using their Styrofoam plates and overlays. Keep track of the amount of time it takes each group to complete the challenge.

Note: Be sure to have the groups search through all the candy pieces each time. Do not remove the ones that have already been identified.