Activity 1 – Age Estimation Using Hands

Centre for Anatomy and Human Identification
University of Dundee

In forensic anthropology – the study of the human body for medical and legal purposes - we can use our knowledge of the development of bones to predict what age a person is.

Using the following facts, can you put the images of the hand bones in the correct order of age?

1. The 'long' bones of the body, including the bones of the hand, grow until the ends of the bones fuse with the shaft (middle) of the bone.

2. This doesn't happen at the same time in all of the bones of the body – instead it happens at different times in different bones.

3. This fusion of bones occurs in a relatively predictable pattern in children, so by seeing which bones are fused we can estimate a child's age.

4. In younger children the bones will look quite far apart - as the child grows older the bones will get closer together.

5. The area where bone growth is occurring, and where fusion will eventually occur, looks like a dark space or line, between the ends of the bones and the middle of the bones on an x-ray (and can sometimes be confused with a fracture!). It get smaller as we get older……

6. As the ends of the bone finally fuse together with the shaft, this line will disappear, so it can no longer be seen in older individuals.

Activity 1 – Age Estimation Using Hands

Centre for Anatomy and Human Identification
University of Dundee

Female

1

2

3

4

5

Activity 1 – Age Estimation Using Hands

Centre for Anatomy and Human Identification
University of Dundee

Male

1

2

3

4

5

Activity 1 – Age Estimation Using Hands

Centre for Anatomy and
Human Identification
University of Dundee

Answers

The correct orders are:

Female – **2** (1 year and 2 months), **3** (5 years and 9 months), **5** (10 years), **4** (14 years) and **1** (17 years)

Male – **3** (1 year), **2** (6 years), **4** (10 years), **1** (14 years) and **5** (17 years)