

### Questions:

- Can you name the main parts of urinary system?
- What does a kidney consist of and what is its function?
- What is the role of the pituitary gland in urine production?

Look at the text for reading and find synonyms for the following words or explain them: micturition, offspring, ovum, womb, gestation, gametes, suckling, labour,

urination, children, egg, uterus, pregnancy, germ cells, breastfeeding, delivery/parturition/childbirth

### Listening

Watch the video and complete the missing words.

The kidneys lie outside the **peritoneal cavity**, they function as the main **excretory organs** and eliminate the body's metabolic waste products which are then **expelled** through the urethra. The kidneys adjust blood composition and so maintain **blood volume and pressure**. In the place called **hilus**, blood vessels, nerves and ureter connect to the kidney. They consist of up to 18 **lobes** (each lobe is divided into lobules) which are composed of **nephrons**. The nephron is made of **glomerulus** and a system of tubules.

Plasma like fluid which is filtered through a membrane in kidneys is called filtrate and forms the **primary urine**. The filtrate then enters the tubule system of the nephron where some substances **are added** to it and some substances are reabsorbed into the blood.

The nephron tubule is divided into four segments: proximal **convoluted** tubule, **loop** of Henle, **distal convoluted** tubule and **collecting tubule**

One **renal artery** supplies blood to each kidney. The artery is divided into segmental arteries which then **branches into** several lobular arteries within the kidney. The afferent and **efferent** arterioles regulate glomerular capillary pressure by selectively dilating or **constricting**. Blood from the kidney empties into the **inferior vena cava**.

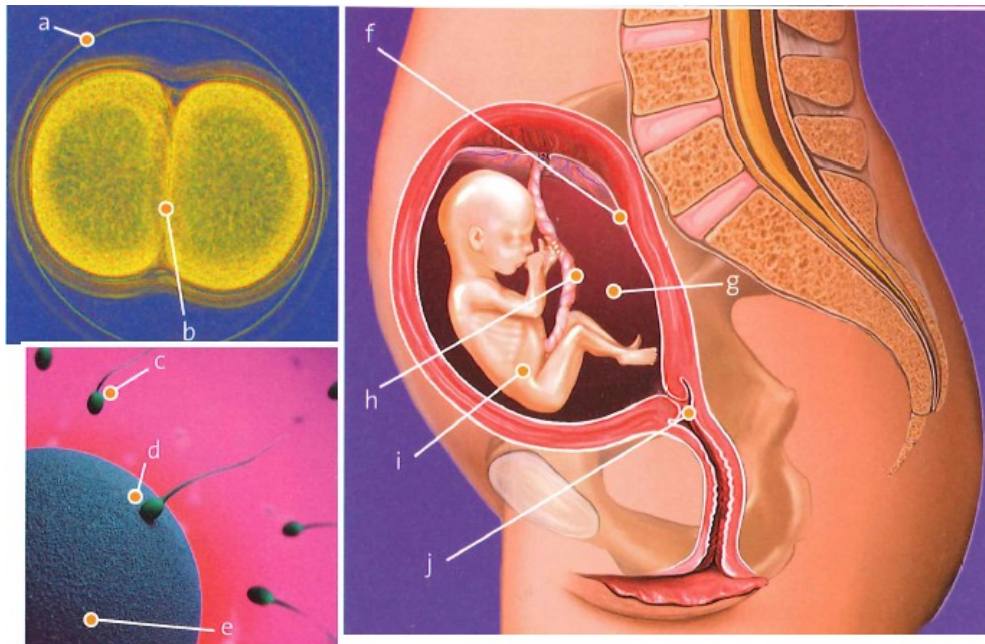
By reabsorption the **constancy** of the internal environment is maintained. After filtration and reabsorption, the filtrate concentrates in **collecting tubules** and then goes to renal **pelvis** from where it passes to the ureter, bladder and urethra.

The kidneys perform an **excretory function**: the blood is filtered and some materials are **selectively reabsorbed** into the blood so that a stable internal environment is **maintained**. The nephron is made up of glomerulus, which **filters the blood** and the tubular component where substances are either reabsorbed or **secreted into** the tubular filtrate for elimination.

number of weeks: 3 7 12 18 22 34

- a The lowest number of weeks at which a premature baby can survive. \_\_\_\_\_
- b The foetus's fine covering of hair, called lanugo, begins to disappear. \_\_\_\_\_
- c Arm buds and a tail are visible. \_\_\_\_\_
- d The embryo measures 30 mm in length. \_\_\_\_\_
- e Male and female genitals appear well differentiated. \_\_\_\_\_
- f The foetal heartbeat can be heard with a stethoscope. \_\_\_\_\_

a 22, b 34, c 3, d 7, e 12, f 18



G-AMNIOTIC FLUID, B-CELL DIVISION, A-EMBRYO, D-FERTILIZATION, I-FOETUS, E-OVUM, F-AMNIOTIC SAC, C-SPERM, H-UMBILICAL CORD, J-CERVIX

#### Verbs for pregnancy

- 1) It was a breech birth (the baby was positioned with the legs down)
- 2) trying for, get, had, expecting, had, went into, did, giving, made, push out, gave, was born, handed

#### From pregnancy to birth

- 1) a 2, b 1, c 3, d 1, e 2
- 2) 1. waters, contractions, 2. dilated, induce, 3. birth plan, gas and air, 4. an epidural, 5. forceps, 6. a miscarriage, 7. presentation

**M** ... OK, I can see the top of the baby's head now, so give a gentle push, Hannah.

**H** Ooooooh.

**M** That's the way ... Now one more ... you can do it ... nearly there now ... just one more push ... and ... that's it ... well done ... and you've got a little baby girl.

**b**

**M** When did your labour start?

**H** My waters broke last night, and I started getting strong contractions early this morning.

**M** So that's about twelve hours ago. Well, you're seven centimetres dilated now, so I don't think we'll need to induce you. Now on your birth plan you've said you'd like gas and air as pain relief, yes?

**H** Yes, but if I can't bear the pain, I'd like an epidural.

**M** OK, well, you let me know how you're feeling ...

**c**

**M** She weighs just over eight pounds, and she's done fine in the tests.

**H** Her head's a funny shape.

**M** That's normal when forceps are used – the head will get into shape within a few days, and the bruising will disappear.

**H** Shouldn't she be crying more?

**M** Well, a strong cry is a sign of good lungs, but her breathing's nice and strong, so we don't have any worries about that.

**d**

**M** So, Hannah, you've had some bleeding, and you're in the 28th week – is that right?

**H** That's right. I've had a miscarriage before, so they thought I should have a scan.

**M** Right, well, the baby's moving fine, and it has a good strong heartbeat.

**H** That's a relief.

**M** The placenta looks just a little low, which is probably causing the bleeding. That should move up over the next few weeks. We'll bring you in in a month for another look, and meanwhile let us know if the bleeding gets heavier.

**e**

**M** The baby's presentation is perfect, with the head down. I know you want to push, Hannah, but don't push yet ... keep breathing ... take some gas and air if you need it ...

## HW

Complete the text with the appropriate form of the verb in brackets.

### POLICE SEEK MISSING SHED

A 32-year-old man **a** (get) got home from work on Friday to find that someone **b** (steal) ..... the shed from his back garden. Martin Graham, who **c** (live) ..... in Francis Road, Darnely, **d** (tell) ..... us he couldn't believe his eyes. 'There was simply nothing there. I thought I **e** (go) ..... into the wrong garden.' A neighbour who **f** (notice) ..... the men while they **g** (disassemble) ..... the shed, **h** (assume) ..... that Mr Graham **i** (ask) ..... them to do it. The two men **j** (drive off) ..... in a white van. Police **k** (investigate) ..... and **l** (issue) ..... a description of the two men.

**b)** had stolen, **c)** lives, **d)** told, **e)** had gone, **f)** noticed, **g)** were disassembling, **h)** assumed, **i)** had asked, **j)** drove off, **k)** is/are investigating, **l)** has/have issued