



Designed for the job

This activity is based on the popular television quiz show 'Who Wants To Be A Millionaire?' and is designed to encourage students to consider the many different structures and functions of the cells in their bodies.

Key stage: 3

Curriculum links: KS3 Science - Sc2 1a) 1c) 1e)

Time scale: 20 - 25 minutes

Learning objectives

This activity would work best as a post-visit activity to the Centre of the Cell exhibition or website section 'Designed for the job'. It covers the following learning objectives:

- We have many different types of cell in our bodies. They are different because they do different jobs
- Cells form tissues and tissues form organs
- Different types of cell have different life spans

Materials needed

Provided in this document:

- Quiz
- Lifeline cards
- 'Monopoly' money

Not provided in this document:

- Small prize for winning team (optional!)

Running the activity

The class is split into teams of four or five. Each team answers the question if they get the question and if they answer the question correctly they win the money. The team with the most money at the end of the game wins.

Each team has three lifeline cards which they can use once during the quiz.



Quiz

£100 Which cell doesn't have a nucleus?

- a) Bone cell
- b) Red blood cell
- c) Brain cell
- d) Sperm cell

£500 How many different types of cell do you have in your body?

- a) Around 1000
- b) Nearly 10,0000
- c) Around 220
- d) Around 2000

£1000 How long does a typical skin cell live for?

- a) A human lifetime
- b) Two weeks
- c) Two months
- d) Twenty years

£2000 Which of the following statements is not true for nerve cells?

- a) Nerve cells last a lifetime
- b) Nerve cells carry electric messages
- c) Nerve cells are the longest cell in your body
- d) Nerve cells are stretchy cells

£8000 What do endothelial cells do?

- a) They line your blood vessels and organs
- b) They are builder cells
- c) They carry electrical messages
- d) They make bone

£16,000 Which of the following statements is not true for pigment cells?

- a) Pigment cells give skin its colour
- b) All of us have the same number of pigment cells in our skin
- c) Pigment cells make hair
- d) The colour of our skin depends on how much melanin is in your pigment cells



Centre of the Cell

£32,000 What do gland cells in the skin do?

- a) Make your skin soft
- b) Make your hair fall out
- c) Carry oxygen around your body
- d) Guard against invasion

£64,000 Muscle cells are...?

- a) Able to send messages quickly throughout the body
- b) Adapted to carry oxygen
- c) Able to contract fibres inside themselves rapidly
- d) Able to warn other cells if there is an infection by germs

£250,000 Which of these statements is not true?

- a) Macrophages clean up the body
- b) Neutrophils are defender cells which gobble up germs
- c) Lymphocytes are full of fat
- d) Fibroblasts are builder cells which repair wounds

£1,000,000 Which statement is true?

- a) Your skeleton lasts you a lifetime
- b) Your cartilage cells are replaced every month
- c) Your brain cells replace themselves throughout your life
- d) Your body contains more bacteria cells than human cells



Quiz answers

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- d) Able to warn other cells if there is an infection by germs

£250,000 Which statement is untrue?

- a) Macrophages clean up the body
- b) Neutrophils are defender cells which gobble up germs
- c) Lymphocytes are full of fat
- d) Fibroblasts are builder cells which repair wounds

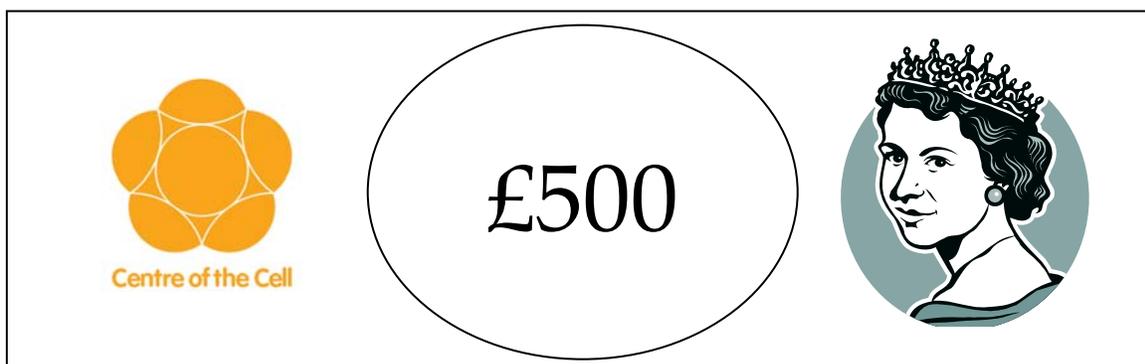
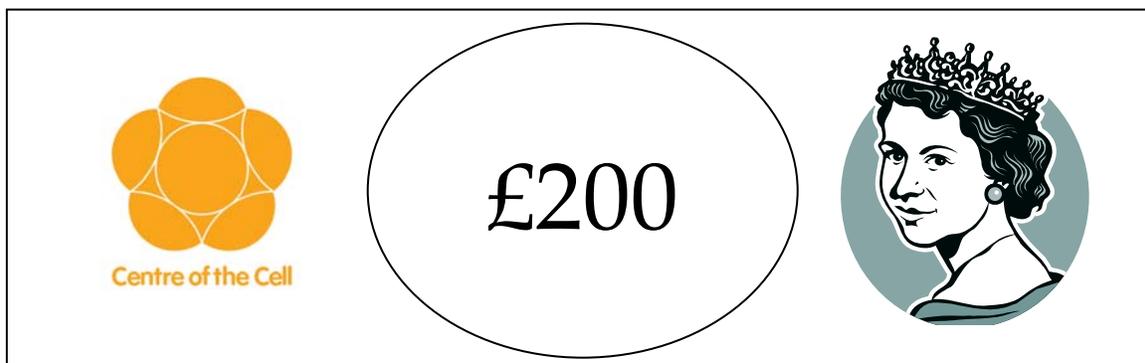
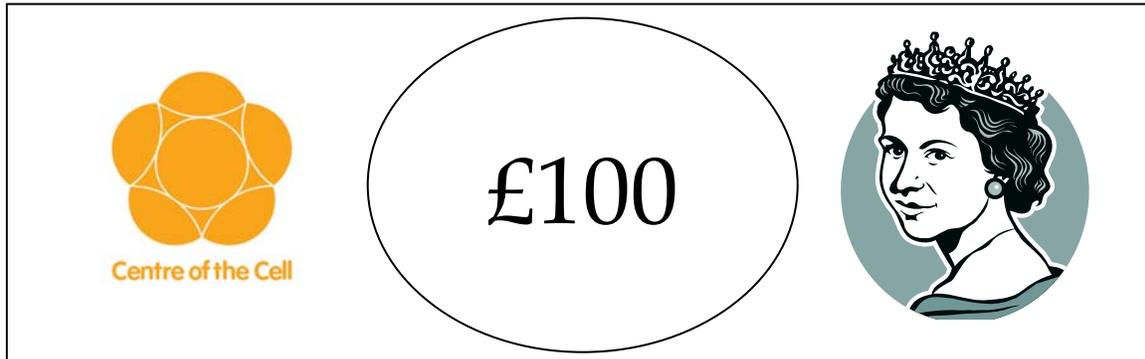
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Centre of the Cell

'Monopoly' money (make as many copies as there are teams and cut out)





Centre of the Cell



Centre of the Cell

£1000



Centre of the Cell

£2000



Centre of the Cell

£8000





Centre of the Cell



Centre of the Cell

£16,000



Centre of the Cell

£32,000



Centre of the Cell

£64,000





Centre of the Cell



Centre of the Cell

£250,000



Centre of the Cell

£1,000,000





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Lifeline Cards (make one copy of each for each team, cut out and laminate)

Ask another group

Send one person to another group to ask what they think the answer is



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50:50

Ask your teacher to take away two of the wrong answers



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Ask the teacher

Ask the teacher what they think the answer is



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