

# Mitosis and the Easter Bunny

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## Objective:

Using colourful Easter paper wrappers to show the various stages of mitosis.

## Materials:

Easter paper wrappers

long colourful paper strings found in Easter Chocolate Box ;)

paper

pencil

compass

prepared slides showing mitosis: onion root cells and animal embryo cells

microscope

## Procedure:

1-Use this mnemonic sentence to illustrate each stage of mitosis:

In Pakistan, Monkeys Are Troublesome Chimps.

(Interphase, Prophase, Metaphase, Anaphase, Telophase, Cytokinesis)

2-Ask students to draw 4 large circles on 2 sheets of paper

3-Following the directions from Science Probe 10 page 358, use the Easter paper strings to represent the chromosomes and the chromatids inside each circle during the various stages of mitosis.

4-Ask students to use these labels for each appropriate stage:

centrioles, spindle, centromere, equator, chromosome, nuclear membrane

5-Observe prepared microscope slides like an onion root cell or an animal embryo cell.

## Discussion:

1-a) What types of cell reproduce by mitosis?

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b) What are three advantages of mitosis?

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c) What are three disadvantage to mitosis?

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2-a) How fast could mitosis take place in some cells. Provide two examples with their rate.

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b) What would happen to an Easter Bunny colony if it reproduced at the same rate as mitosis?

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3-What consequences would take place if an Easter Bunny reproduced by mitosis?

a) List three advantages

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b) List three disadvantages

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4-Compare a prepared microscope slide to your Easter paper string model.

a) Why do you suppose that few onion cells were dividing?

(Hint: remember that you are looking at only a moment in the life of these onion cells.)

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b) Were any of the animal or plant cells undergoing cytokinesis? If so, what stage of mitosis were they in at the time?

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5-Which came first, the chicken or the egg? (Or during Easter, the Bunny or the eggs? In your answer, use the term mitosis in a reflective, thoughtful fashion.)

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