



TEACHER'S NOTES

UNDERSTANDING DMD

OVERVIEW

Aimed at key stage 4 pupils.

This is a comprehension activity which leads on from watching Connor's film.

LEARNING OBJECTIVES

- Duchenne Muscular Dystrophy is a genetic disorder that is carried on the X chromosome
- Genetic disorders can be passed on by 'carriers'.

CURRICULUM LINKS

- KS4: The ways in which organisms function are related to the genes in their cells.
- KS4: Human health is affected by a range of environmental and inherited factors, by the use and misuse of drugs and by medical treatments

PREPARATION

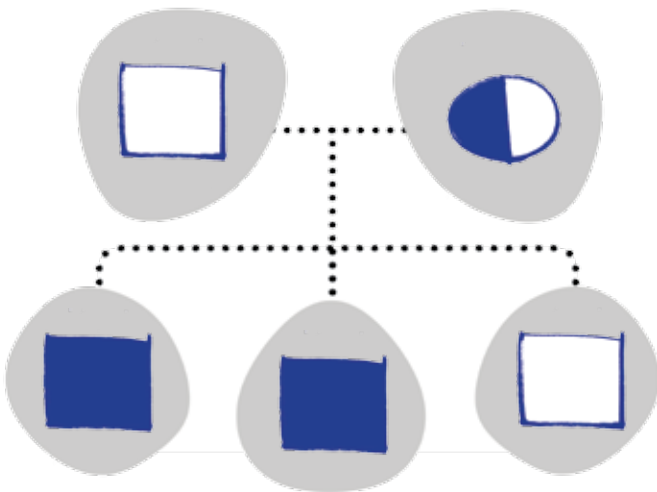
- Print worksheets

Activity

- Watch 'Connor's story' on the Genes Are Us website.
- Class complete worksheet

ANSWERS

1. Fill in the 5 spaces on the family tree below (using the symbols below to represent each individual)



2. What are the symptoms of DMD?

DMD is a progressive muscle wasting condition. This makes it hard for Connor to control his muscles and there is little strength in them.

3. How do you think Connor and Luke's condition has affected the lives of this family?

Answers could include: that the family have to work together and face difficulties that other families don't have to; that Connor's condition must affect the daily routine, such as time required to help him in and out of bed; that it must be difficult for the boys' parents to see their children deteriorate; and that the family are able to do many things in the same way as other families, such as the boys playing together.

4. Explain why Donna is not ill, even though she carries a copy of the faulty gene.

As a woman, she has two X chromosomes and two copies of the dystrophin gene.

She only needs one working copy of the gene to be healthy.

5. Why is Connor's youngest brother (Adam) not affected by the condition?

Adam inherited the working copy of the dystrophin gene from his mother.

FURTHER INFORMATION

See **Connor's Story Teacher Factsheet** on DMD for basic information. For more detailed information, link to the patient support group:
Muscular Dystrophy Campaign: www.muscular-dystrophy.org

FOR MORE RESOURCES LIKE THESE, AND TO SIGN UP FOR
 JEANS FOR GENES DAY, VISIT US AT **WWW.JEANSFORGENES.COM**

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nowgen
 A Centre for Genetics in Healthcare

understanding DMD

Watch the short film about Connor and his family and then answer the questions below.

Connor is affected by Duchenne Muscular Dystrophy (shortened to DMD).

- 1 Fill in the 5 spaces on the family tree below (using the symbols below to represent each individual)



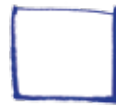
Male



Female



Affected



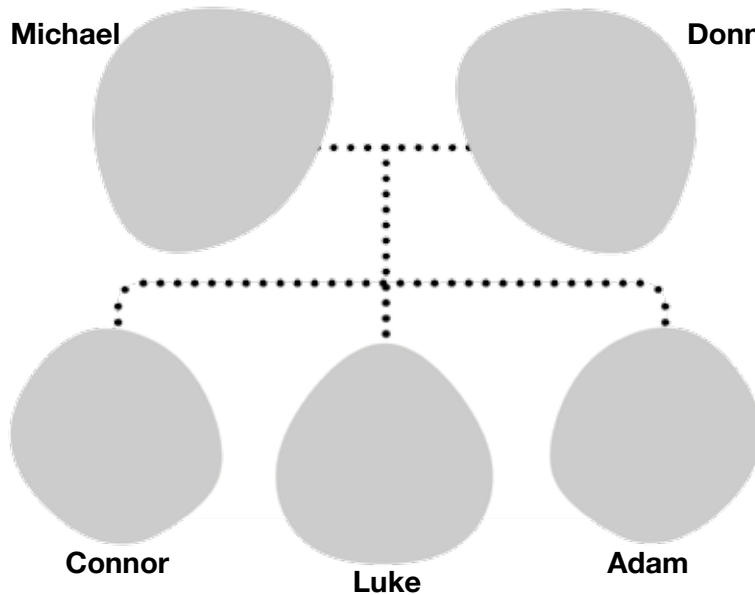
Unaffected



Carrier

Michael

Donna



Connor

Luke

Adam



Connor



Luke



Adam



Donna



Michael

- 2 What are the symptoms of DMD?
- 3 How do you think Connor and Luke's condition has affected the lives of this family?
- 4 Explain why Donna is not ill, even though she carries a copy of the faulty gene.
- 5 Why is Connor's youngest brother (Adam) not affected by the condition?

FOR MORE RESOURCES GO TO WWW.JEANSFORGENES.COM

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