

Working with children includes
monitoring their health.

You often need to **understand
graphical information.**

The information in the table below is about
a baby girl at **five different ages.**
Record it on the two charts.



Age in months	Weight in kg	Length in cm	Head circumference in cm
3	5.6	55.8	40
9	8.6	70.4	44.4
15	10.6	80.2	46.4
21	12	85.6	47.6
30	13.6	95.4	48.6

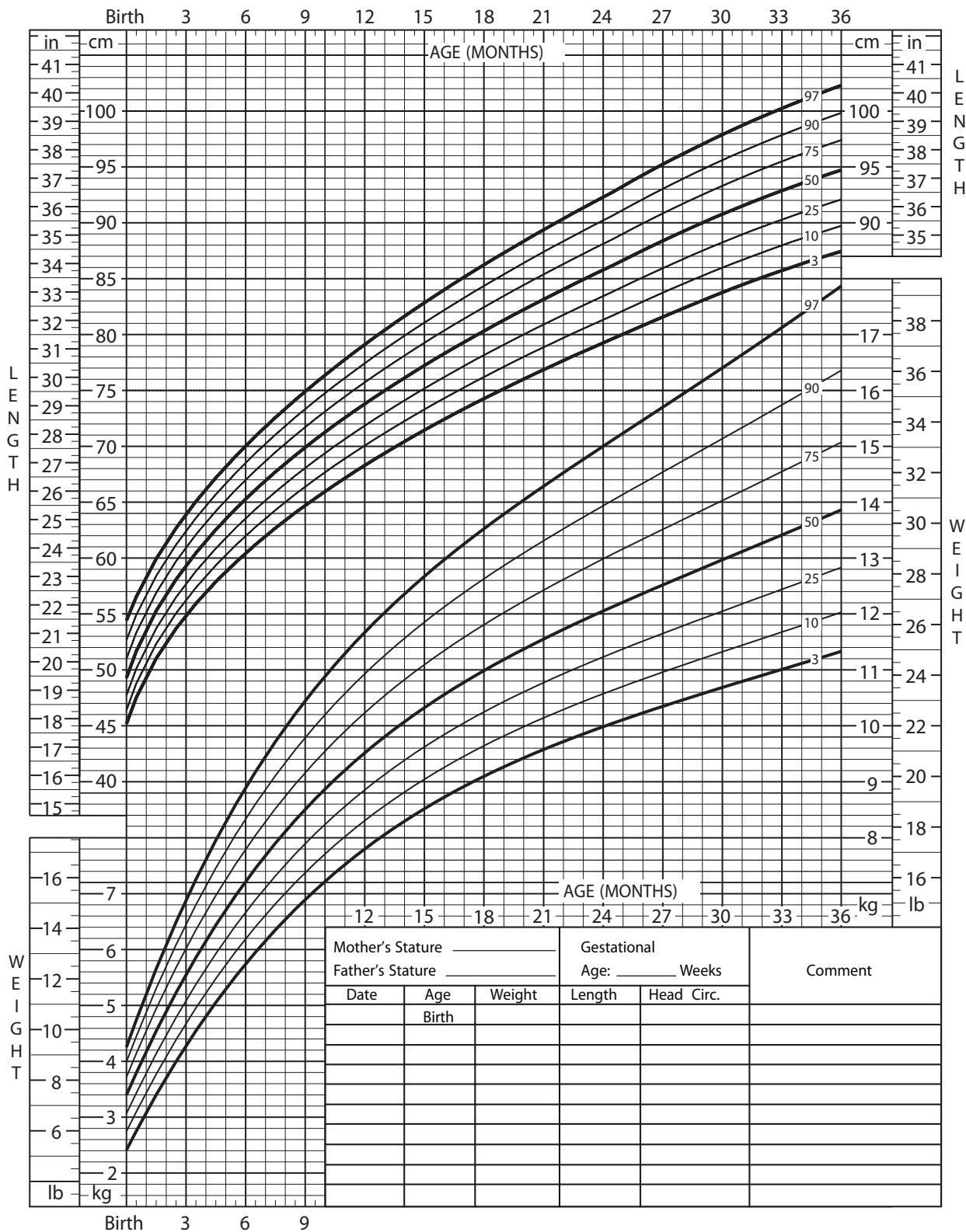
Write some comments about this baby's development.

childcare and early years

Birth to 36 months: Girls
Length-for-age and Weight-for-age percentiles

NAME _____

RECORD # _____



Published May 30, 2000 (modified 4/20/01).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
<http://www.cdc.gov/growthcharts>



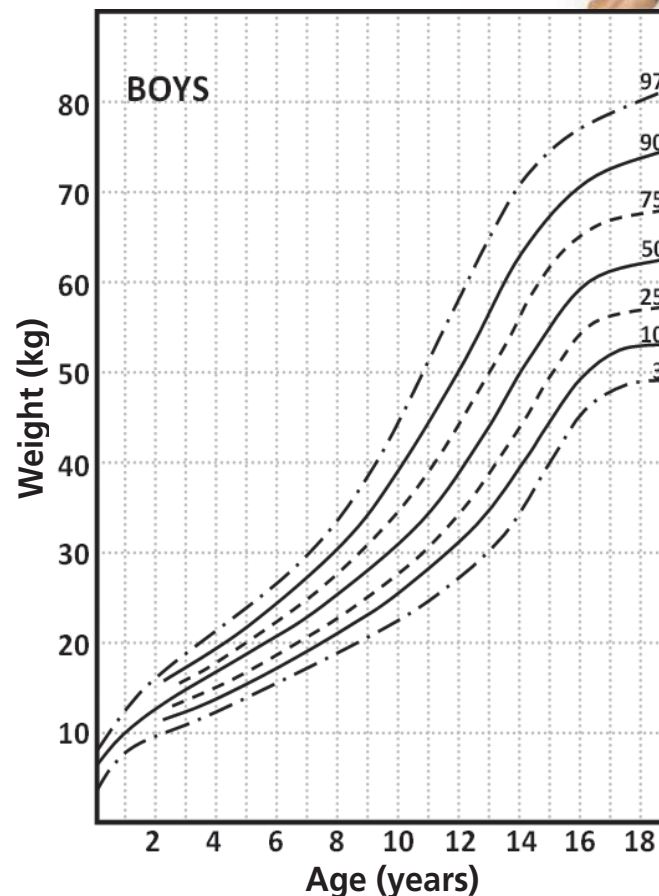
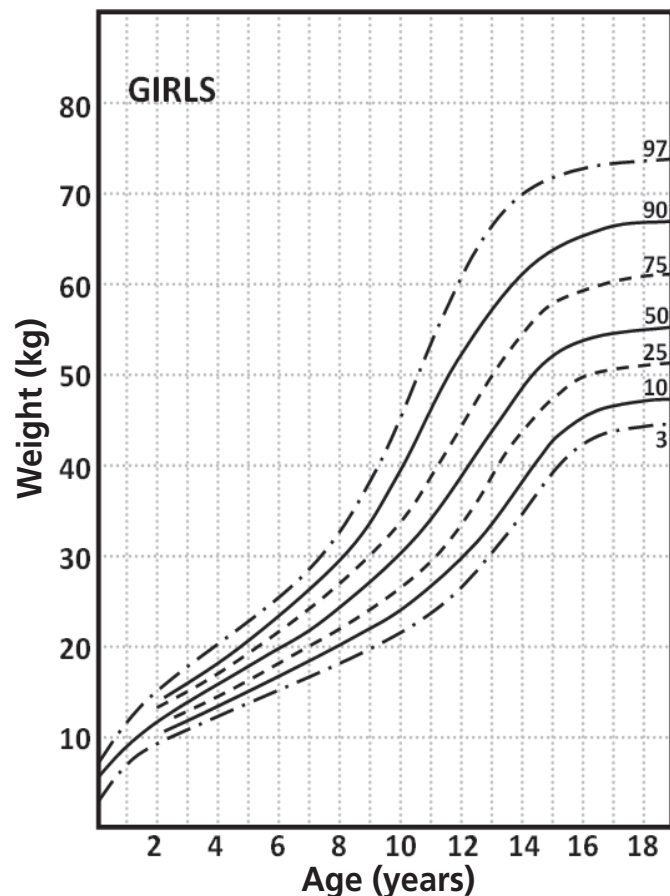
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childcare and early years



Working with children includes
monitoring their health.

*You often need to read
information from graphs.*



Look at the
statements about
girls and boys.

Four are **true** and
four are **false**.

Which is which?

Make up two
statements of your
own. **Now test
them on a
partner.**



<p>Only 3 boys in 100 weigh less than 50kg when they are 14.</p>	<p>The average 10 year old girl weighs 30kg.</p>	<p>Boys grow fastest between 12 and 16.</p>	<p>Boys always weigh more than girls.</p>
<p>The average boy puts on about 10kgs between 1 and 6.</p>	<p>Three quarters of 13 year old girls weigh 50kg.</p>	<p>Girl babies are heavier than boy babies.</p>	<p>Girls don't grow much after they are 15.</p>

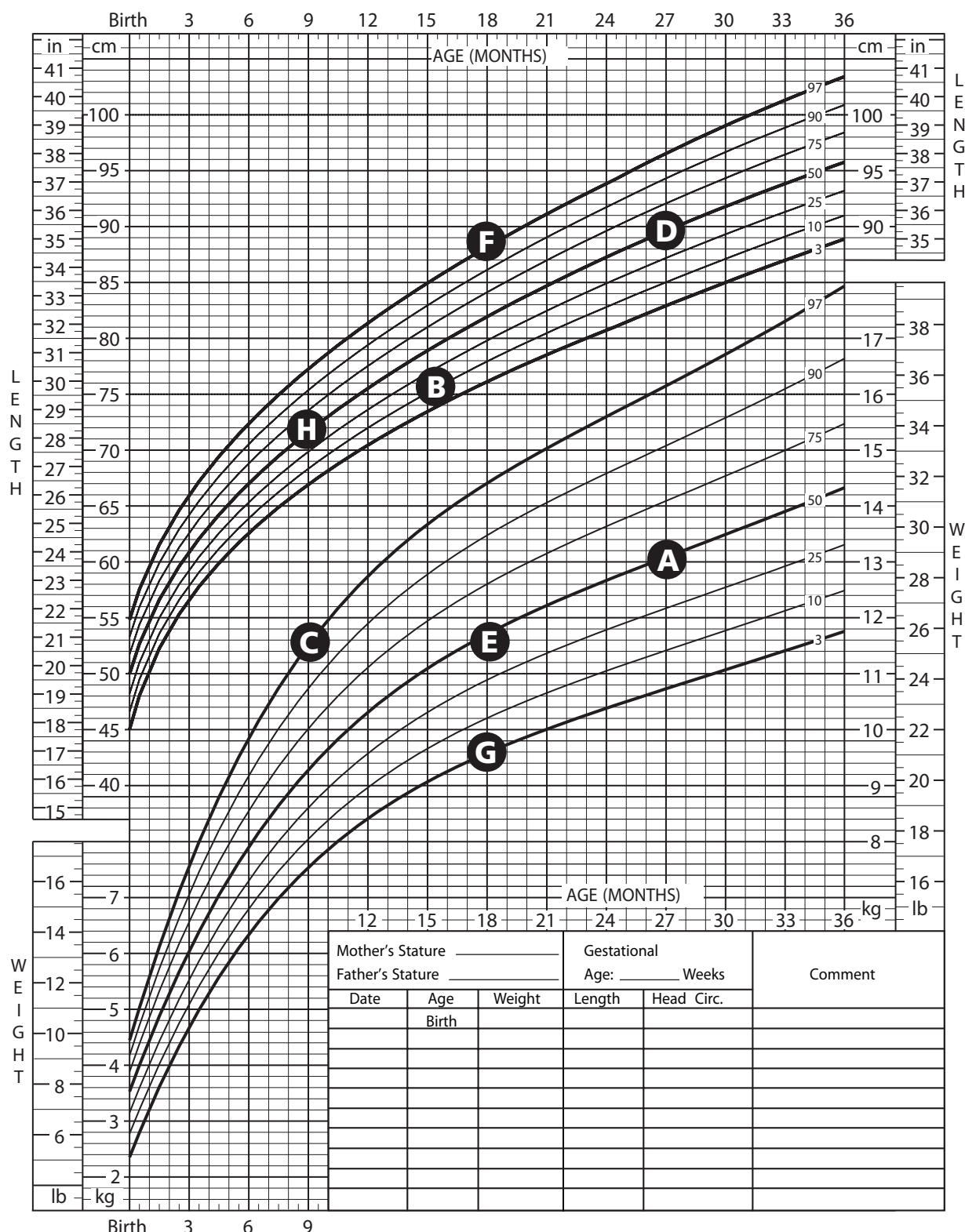
Look at the statements about girls and boys.
Four are **true** and four are **false**. **Which is which?**

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childcare and early years

Cut out the child cards and match them to the
letters on the graph.



<p>This toddler is tall for his age.</p>  	<p>This baby is 72cm long.</p>  	<p>This child is more than two years old.</p> 	<p>At two years three months this child is average height.</p>
<p>This 18 month old weighs 11.6kg.</p>  	<p>About 3 in 100 babies are heavier than this one.</p>	<p>Very few 18 month olds weigh less than this one.</p> 	<p>Only one in ten toddlers of the same age are shorter than this one.</p>

Cut out the child cards and match them to the **letters on the graph**.

childcare and early years

Childcare and early years : Healthy childhood

Description

People working with children often have to read complex graphical information. This topic provides opportunities for pupils to work with charts that are used professionally.

Activity 1: Keeping track

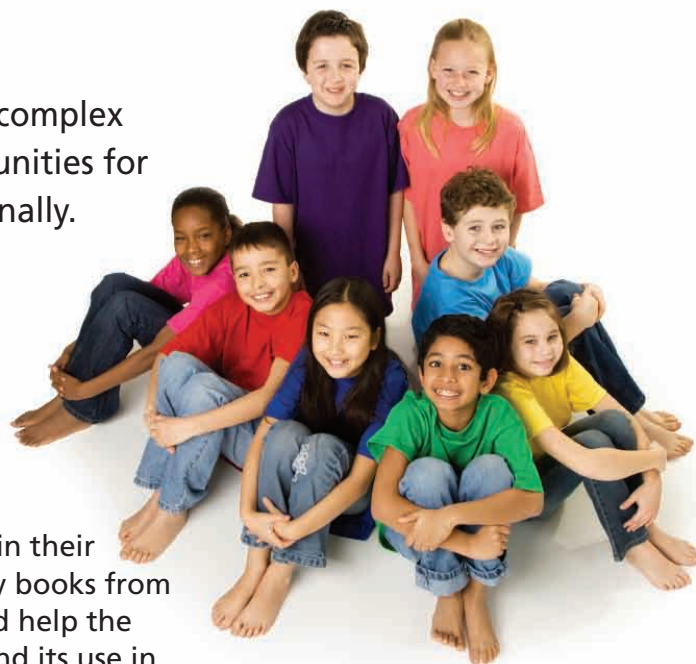
Activity 2: True or false?

Activity 3: Who is it?

To introduce this activity, encourage the pupils to bring in their own baby books if they are available or show them baby books from other sources. This will strongly motivate the activity and help the pupils to make connections between the mathematics and its use in early childcare records.

Keeping track requires the pupils to work with complex charts that are used by professionals. The charts use a variety of overlapping scales and two sets of measures from which the pupils will have to select the relevant ones for each item of data. The task can be presented as a whole class activity using an interactive whiteboard or a data projector with pupils adding the points to the graph. It provides a rich opportunity for whole class discussion. Alternatively, if the task is photocopied onto A3 paper, group work discussion can be used to develop this mathematical thinking.

This thinking is developed further in **True or false?** which is a group activity. Pupils will probably find it helpful to cut out the statements and try to arrange them into two separate piles. Again, the fact that the pupils know that there are four true and four false answers will help them come to the correct solution. The activity is extended by the pupils making up their own statements and testing them on a partner. Once the statements are refined, pairs can produce a poster featuring their statement and explaining their graphical justification for saying that is true or false.



A cut-out sheet is provided for **Who is it?** to support the pupils in matching descriptions of individual infants and young children to graphical data.

For one of the cards there is more than one solution – the correct possibility is found by working out a full solution for all the cards. The cards can be laminated and re-used or, alternatively, each group can use a paper copy of the cards and the graph to create a display of their solutions.

The mathematics

All three activities involve interpreting graphical information and logical argument and justification. In addition, **Keeping track** also involves recording information graphically.