Lesson 2 Growth and Change

Objectives

By the end of this lesson, students will be able to:

- Identify that some measurements change as they grow.
- Make and record some measurements.
- Use information to estimate growth.

Overview

This lesson builds on what students have learnt about differences, and introduces measuring differences and changes in growth. Students practise taking and recording some measurements. They also consider how the measurements change as they grow.

Stimulus Activity

The stimulus pictures show a baby, a young child and a preteen. To begin with,

ask students an open question about how they change as they grow. Students may talk about changes in activities such as walking, talking and crying. Then encourage them to also consider changes in measurements. Ask groups to make a list of measurements that change as they grow such as height, foot length, and weight.



AGGIVILY I

In this activity, first ask students to decide what they would use to measure height. Take feedback in the form of a class vote, where students vote by a show of hands. Possible uses for the other two instruments should be discussed, such as the thermometer for measuring temperature and the clock for timing a race. Put students in small groups and give each group a tape measure. Ask questions such as: Can you see the numbers?



Can you see 1 cm? Circulate around groups to check answers. Ensure that students are familiar with "cm" as a unit of length measurement.

Then ask students to work individually to estimate the height of Lily and Kate. Ask students to explain to each other how they arrived at their answers.

AGUNUY 2

In this activity, students consider how Bob's height changes by reading a bar chart. Give students some guidance to interpret data in the chart before asking them to answer the questions. Take some feedback about the answers, ensuring that students use the correct units in their answers. The final question cannot be answered accurately; the obvious answer is 140 cm, as Bob has grown 5 cm each year between age 6

and 9. However, credit students that give slightly different answers if they can justify them by saying that it is likely that we grow different amounts in different years.

AGGIVILY B

This activity provides students with an opportunity to practise taking and recording measurements. Students should work in groups to help take measurements of each other. You may need to demonstrate how to measure height, hand span and foot length first. Stress the need for accuracy and the need to include units. Students could prepare a sentence linked with their findings, such as "My hand span is 15 cm." (Hand span is the distance between the tip of the thumb and the tip of the little finger, when the fingers and thumb are spread out.) Ask each group in turn to share their findings and reflect on

Lesson 2

whether measurements within the group are similar or different.

Students then work individually to consider how the measurements will change in one year's time. Ask students to estimate a value for each of the measurements. There is no "right" or "wrong" answer here, but it is likely that height will increase the most, followed by foot length, and hand span will increase the least.

Now I Know oo

我们在成长。<mark>我们</mark>会长大。 我们可以测量成长变化。

In this lesson, students take measurements and read a chart. They do not use a clock.



Led's Practise!

This activity allows students to produce their own charts. If they do not have a record of their height when they were younger, they can estimate what it was previously. Ensure that students plot a similar pattern to that in Activity 2.

让我们练习吧!

在本活动中,学生将在书中的指导下比较双胞胎的特征。先让学生给双胞胎的共同特征打对号。接着,作为拓展,教师可以让学生指出列表中双胞胎的哪些特征是容易改变的。学生应该会想到衬衫的颜色(可能还有头发的颜色,它会通过染发而改变)。作为本课的总结,教师可以要求学生列举判断人们是否来自同一家庭的最重要的特征,比如:头发的颜色、眼睛的颜色和形状、鼻子和耳朵的形状以及皮肤的颜色。

第二课 成长和变化

教学目标

通过本课的学习,学生将能够:

- 识别身体部位的尺寸会随着他们的成长而变化。
- 测量并记录某些身体部位的尺寸。
- 利用一些信息预测身体部位的成长变化。

概述

本课建立在学生对身体不同点的学习之上,引入了测量身体某些部位的尺寸的方法 及测量成长中的变化。学生将练习测量并记录测量结果,并思考随着一个人的成长,身 体某些部位的尺寸是如何变化的。

导入活动

导入活动的图片展示了一个婴儿、一个小孩儿和一个接近青春期的男孩。开始时,向学生提问一个开放性的问题,他们在成长过程中是如何发生变化的。学生可能会谈到行为活动方面的变化,如走路、说话和哭泣。然后,鼓励学生思考身体部位的尺寸方面发生的变化,并请学生以小组为单位列出身体部位尺寸方面(比如身高、脚长和体重)的变化。

活动一

在本活动中, 先让学生选择测量身高的工具。可以用全班举手投票的形式来查看学生

的选择。还可以讨论其他两种测量工具的用途,比如温度计可以用来测量温度,钟表可以用来为比赛计时。然后,将学生分成小组,给每个小组发一个卷尺,并向学生提问,比如:"你能看到上面的数字吗?""你能看到1厘米的刻度吗?"教师到各组走动,核实答案,确保学生知道"cm"是测量长度的单位。

接下来,让学生各自估计莉莉和凯特的身高,并请学生向大家解释他们是如何作出估计的。

活动二

在本活动中,学生将通过观察书上的柱状图思考鲍勃的身高是如何变化的。先指导学生解读图表中的数据,然后再进行提问。收集学生的答案,确保学生在回答时正确地使用了测量单位。最后一个问题没有准确的答案;由于鲍勃从6岁到9岁每年长高5cm,所以明显的答案是140cm。然而,如果学生给出的答案稍有不同但能够给出合理的解释,如我们每年长高的程度会不一样,教师应给予表扬。

活动三

在本活动中,学生将有机会练习测量和记录测量结果。学生应该分成小组,互相帮助进行测量。教师首先需要向学生演示如何测量身高、一拃的长度和脚的长度。教师要向学生强调准确测量以及使用测量单位的必要性。学生可以说出与测量结果相关的句子,比如"My hand span is 15 cm."(一拃是指当五指张开时,大拇指顶端到小指顶端的距离。)教师让各小组轮流说出他们的测量结果,并思考组内的测量结果是否相同。

学生随后独立思考这些测量结果在一年后将会如何变化。让学生预测各项测量一年后的数值。预测的数值没有对错,但是一般来讲,身高的增长最多,其次是脚长,一拃的长度增长最少。

现在我知道……

我们在成长。我们会长大。 我们可以测量生长变化。

我是如何知道的……

在本课中,学生进行了测量,并读了图表。他们没有使用时钟。 ☑ 我进行了一些测量。

- ☑ 我根据图表进行了推断。
- □我使用了时钟。

让我们练习吧!

本活动让学生制作自己的身高图表。如果学生没有自己小时候的身高记录,可以让他们估计一下自己先前的身高。教师要确保学生制作的图表样式与活动二相似。

第三课 世界各地的人

教学目标

通过本课的学习,学生将能够:

• 描述来自世界各地的人之间的相似点和不同点。

概述

本课关注来自世界各地的人之间的相似点和不同点。学生运用观察技能比较不同民族的人,然后比较自己和世界其他地方的人的需求。不论来自世界哪个地方,我们的基本需求是相同的,本课最后用一首歌强化了对这一事实的认识。

导入活动

导入活动的卡通图片展示了来自世界不同地区的两个人——汤姆和费斯图斯。先让 学生描述他们的不同点,如面部特征。然后,让学生关注相似点,如两个人都有两只眼 睛、两只手以及都有皮肤等。

活动一

请学生观察中国男孩、欧洲女孩和拉丁美洲男孩的图片,然后在表格中打对号或打 叉。前四行的问题容易回答,学生在图中都能找到答案。学生应该很容易地发现眼睛颜 色、头发颜色和皮肤颜色的不同。教师可以和学生一起讨论,使学生认识到来自同一民 族的人在这些特征上通常是相同的。第 5、6、7 行要求学生思考个人的需求是什么以及 他们都能做些什么。学生应该可以推断出这些人都会呼吸空气、笑和睡觉。