

Test Date: **October 2017**

School: **SAMPLESCHOOL**

This report shows student results on the IBT achievement scale with descriptions of the skills demonstrated. There is a report for each subject and grade on the following pages.

Understanding the Described Achievement Report

IBT Scale

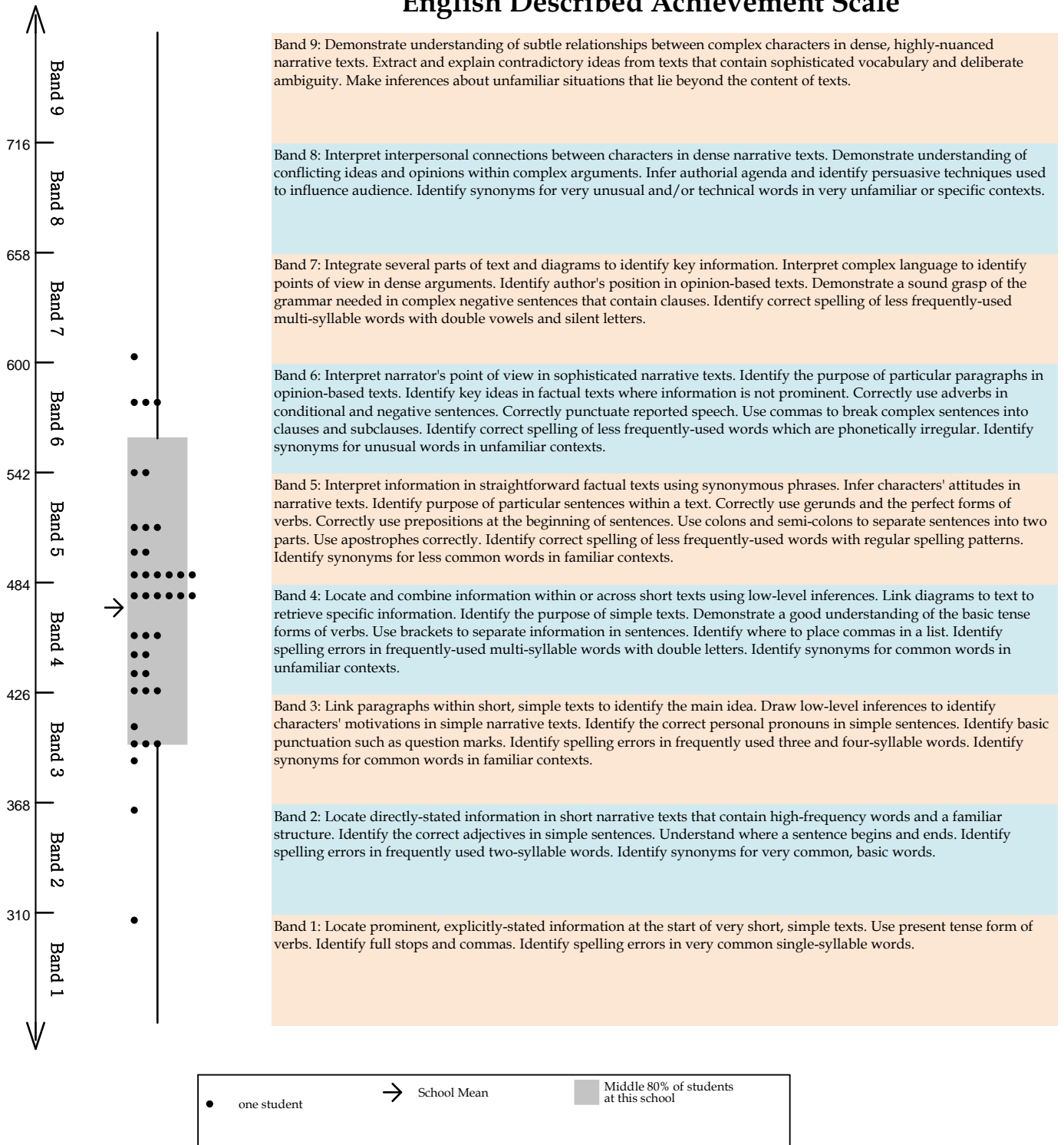
- There is an IBT scale for each subject: English, Maths and Science.
- The achievement of a student is based on the test score for a subject, which is converted to a location on the IBT Scale and expressed as a Scale Score.
- Within each subject, student achievement expressed as scale scores allows for direct comparisons of students within grades, between grades and also over time.

IBT Described Achievement Bands

- Achievement bands have been described along each IBT scale to span the range of skills and understandings demonstrated in each subject.
- The descriptions of achievement are divided into nine different sections called achievement bands where band 1 describes the lowest set of skills and band 9 describes the highest set of skills.
- Students at the top of a band have typically demonstrated all the skills in that band and at all of the bands below. Students in the middle of a band have typically demonstrated half the skills in that band and most or all of the skills in the bands below. For example, a student with a scale score in the middle of achievement band 5 can typically do about half of the skills at band 5, most of the skills at band 4, and almost all of the skills at bands 3, 2 and 1.
- It is not expected that a student moves into a higher achievement band every year, due to the width of the bands, but students typically move up the bands as they move through their years at school.
- The scale descriptions provide a practical interpretation of the scale scores in terms of skill and understanding demonstrated by a student. The bands provide levels of achievement for each subject. Both scale descriptions and achievement bands can help teachers to more effectively target their teaching.
- This style of reporting is used in many national and international assessment programs such as the Trends in International Mathematics and Science Study and the OECD's Programme for International Student Assessment as well as Australia's National Assessment Program for Literacy and Numeracy.

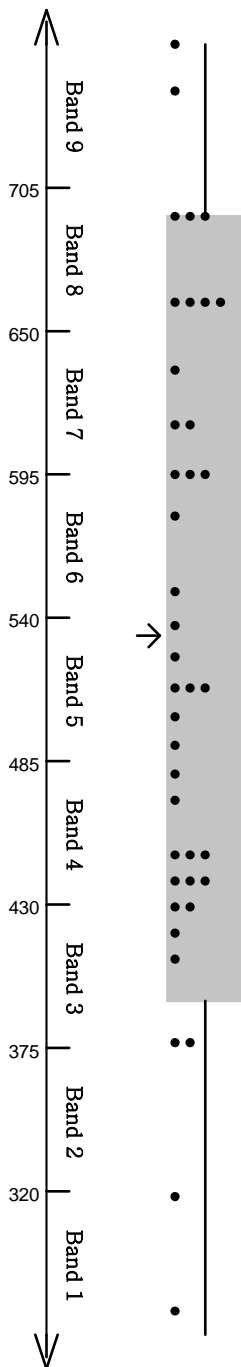
Subject: English
Test Date: October 2017
School: SAMPLESCHOOL
Grade: 3

English Described Achievement Scale



Subject: Mathematics
Test Date: October 2017
School: SAMPLESCHOOL
Grade: 5

Mathematics Described Achievement Scale



Band 9: Solve equations in exact surd form. Solve measurement problems in non-standard contexts, involving conversion of units and inverse use of formulae. Use scale factors to calculate flexibly with 2-D shapes and 3-D objects. Compare mean and median values for asymmetric distributions and for grouped data. Calculate probabilities for compound events and simple conditional events when the problems are expressed in words.

Band 8: Simplify surd expressions with an irrational denominator. Convert between litres and cubic metres. Work flexibly with measurement formulae for non-standard shapes or objects, including the use of Pythagoras' Theorem in three dimensions. Use scale factors to enlarge or reduce similar shapes. Calculate percentage change from different data representations. Calculate the probabilities of compound events using tree diagrams.

Band 7: Simplify, calculate and estimate numerical surd expressions. Solve word problems involving fractions and part-to-whole ratios. Calculate percentage error and percentage change. Match a graph to a given linear or quadratic rule. Calculate with speed, distance and time; with ratio scales and maps; and with Pythagoras' Theorem in two dimensions. Calculate angles in figures with parallel lines. Represent data in pie charts. Calculate flexibly with mean, median and mode. Use a grid representation to find the probability of compound events.

Band 6: Find prime factors, lowest common multiples and highest common factors. Perform calculations with fractions, percentages, ratios, squares and square roots. Solve linear equations and word problems with one or two unknowns. Compare times across different time zones. Calculate flexibly with area, surface area, volume and capacity. Describe 3-D objects by their edges, vertices and faces. Interpret maps, using scales and compass points. Calculate angles in triangles and quadrilaterals. Compare the mean and median for data sets. Read values in a two-way table. Calculate probability values from spinners, dice and random draws.

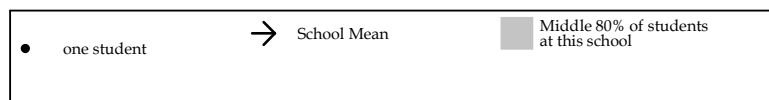
Band 5: Identify properties of prime, composite, square and cube numbers. Solve problems involving all four operations and negative numbers. Add and subtract decimals and fractions. Find decimal equivalents to fractions. Continue patterns involving fractions and decimals. Read scales and convert between metric units. Connect nets with 3-D objects. Relate degrees to the size of turns. Use the Cartesian coordinate system to identify positions of points. Identify probabilities of simple random events. Interpret and compare data presented in different ways.

Band 4: Understand place value of numbers with five digits. Use partitioning to solve addition and subtraction problems. Solve multiplication problems involving large numbers. Solve division problems that result in a remainder. Compare unit fractions and locate them on a number line. Solve problems that require interpreting patterns. Compare different angle sizes. Visualise 3-D models from a different perspective and match a 3-D object to a 2-D view. Investigate the effect of turns. Represent simple probabilities as fractions.

Band 3: Relate multiplication to division, and solve simple problems involving addition, subtraction, multiplication, and division when there is no remainder. Recognise odd and even numbers. Continue simple number patterns. Tell the time to the minute and convert between units of time. Use scaled instruments to measure and compare length, mass, capacity and temperature. Calculate the perimeters and areas of rectangles. Interpret simple plans to locate position of objects. Identify lines of symmetry in pictures and patterns. Order outcomes of simple chance events. Interpret information presented in simple graphs, tally charts and tables.

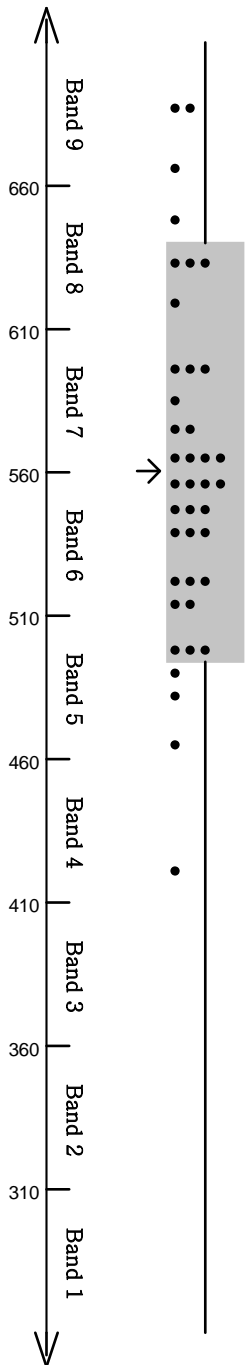
Band 2: Understand place value of numbers with four digits. Add and subtract two-digit numbers, and demonstrate an understanding of the relationship between addition and subtraction. Represent multiplication as repeated addition. Read time to the quarter-hour on analogue and digital clocks. Identify angles as a measure of turn. Name and describe 2-D shapes. Use the everyday language of position and direction. Find information from basic tables. Use simple language of chance.

Band 1: Understand place value of numbers with three digits. Add and subtract single-digit numbers. Identify very simple patterns involving counting. Read time to the half-hour on analogue and digital clocks. Read values from very basic column graphs.



Subject: Science
Test Date: October 2017
School: SAMPLESCHOOL
Grade: 7

Science Described Achievement Scale



Band 9: Identify factors affecting experimental outcomes, and provide likely explanations for unexpected results in sophisticated experiments. Use complex diagrams, graphs and tables to interpret scientific data. Show an awareness of conservation of energy in increasingly complex interactions. Understand the role of natural selection in developing species diversity. Demonstrate an understanding of how electrical currents flow through circuits.

Band 8: Have a well-developed understanding of the enquiry strategies used in investigations. Understand relationship between independent and dependent variables. Use Punnet squares to demonstrate the transmission of heritable characteristics from one generation to the next. Have a developed understanding of plate tectonics and the formation of different rock types. Demonstrate an intuitive understanding of Newton's three laws. Identify factors driving environmental adaptations in plants. Demonstrate a knowledge of key features of the periodic table. Use scientific formulae to calculate expected results.

Band 7: Outline reasons for choosing a particular experimental method or enquiry strategy. Use evidence to identify adaptations that assist in species survival. Understand how 'greenhouse' heating of the Earth's atmosphere takes place, and understand the changing positions of the planets in the solar system. Have an understanding of the geology and forces within the Earth's crust. Have a sophisticated understanding of the laws of reflection and refraction.

Band 6: Identify conditions that must be invariable in a scientific experiment. Predict changes in plant and animal populations as habitats change. Understand the way nutrients cycle in ecosystems. Understand the difference between elements and compounds. Predict the effect of unbalanced forces on an object. Know the basic relationships of bodies in the solar system. Understand the cause of seasons and eclipses. Identify energy transformations in many common contexts. Recognise some of the factors inherent in reflection and refraction of light.

Band 5: Understand the need for replication and controls in investigations, and draw conclusions based on observational data. Understand the water and carbon cycles. Show an awareness of dependence between components in ecosystems and adaptations for survival. Recognise differences in plant and animal cells. Understand the concept of conservation of mass in simple reactions. Identify phases of the Moon and have a basic understanding of the force of gravity. Identify the properties of conductors and insulators. Understand the formation of fossils.

Band 4: Interpret simple tabular data to make inferences. Indicate the conditions for changes in physical states of matter. Explain the relationships involved in food webs, and recognise life cycle stages in insects. Understand the conditions for current flow in simple circuits. Show awareness of safety issues in the use of laboratory equipment.

Band 3: Search for specific data in column graphs. Understand that heat can be transferred by conduction. Follow a sequence in a food chain and understand the role of insects in plant reproduction. Show awareness of some of the elementary properties of light e.g. shadow formation, reflection from surfaces. Show a basic awareness of the relationships between Earth, Moon and Sun.

Band 2: Identify the characteristics of living things, and group objects on the basis of observable features. Predict outcomes for plant growth when given a very simple set of conditions. Distinguish between naturally occurring objects and artificial ones. Recognise changes of physical state and obvious sources of energy.

Band 1: Sometimes extract limited information from simple column graphs and read the scales of simple instruments. Visually identify the components of objects and of living things and make obvious comparisons. Apply basic and limited scientific knowledge in very familiar situations.

