

2012 年度 玉川学園 IB クラス 入学試験問題

平成 24 年 2 月 1 日

理科/社会 総合問題

APPLICATION OF KNOWLEDGE
IN NATURAL AND SOCIAL SCIENCES

7 年生

氏名 Name	
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受験番号 Test Number					
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得点 Score	
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1. 問題用紙の解答欄に直接回答を書き込んでください。
2. 解答は、日本語でも英語でもどちらでも構いません。
3. 採点基準が最期のページに示してあります。時間の余裕があれば確認してください。

このテストでは、理科と社会の知識と理解、応用の力を計ります。このテストはパートA、パートBの2つに分かれています。
英語で答えても、日本語で答えてもかまいません。

The questions on this test measure your ability to apply your present knowledge and understanding of Science and Social Studies to solve problems and answer practical questions. The test has two Parts. Answer all questions.

パートA 評価基準のAによって採点されます。

PART A will be assessed in accordance with the objectives listed in Criteria A: Conclusion and Evaluation

下の表は、100 ミリットルの水をガスバーナーを使って一定の火力で温めた時の温度を記録したものです。温度は一定の時間ごとに記録されています。

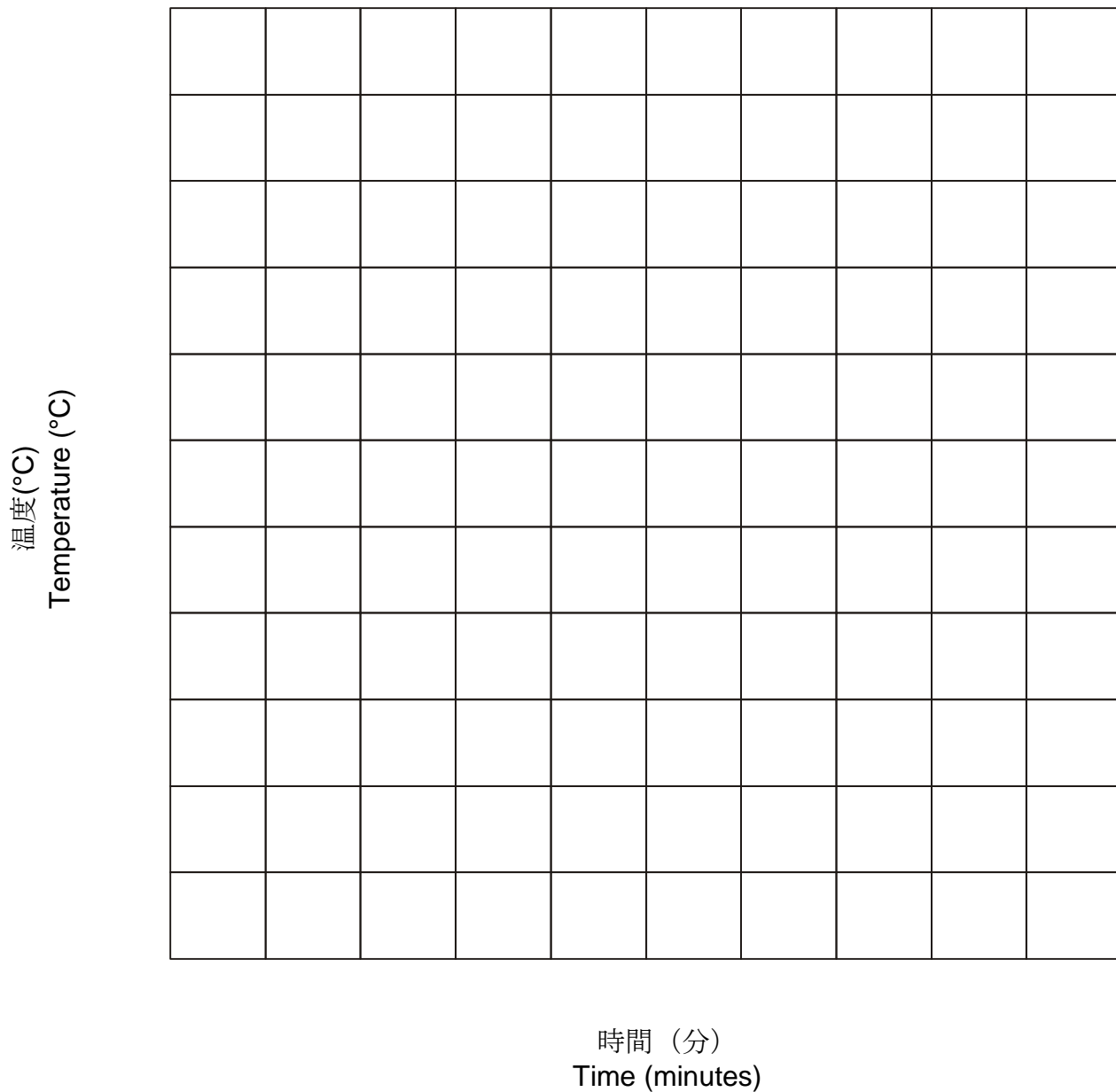
The table below gives the temperatures recorded as 100 mL of water was heated using the Bunsen burner using a blue flame. The temperature was recorded once at each time interval.

時間 (分) Time (minutes)	0	1	2	3	4	5	6	7	8	9	10
温度(°C) Temperature (°C)	18	22	30	44		69	79	91	100	100	100

表の値を折れ線グラフで表しなさい。

Plot this data as a **line graph**.

グラフのタイトル **Title:** :



表の中で、4分のところには記録がありません。グラフを用いてその時の温度を求めなさい。
No reading was taken at the 4 minute mark. Using the graph, what would you infer the value was at this time?

答え： _____ °C.

どのようにしてその温度を求めたのか下の欄に説明しなさい。
Explain your answer in the space provided.

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グラフをもとにして、この10分間に温度がどのように変化したか説明しなさい。また、この表に記録された温度は正確だったかを述べなさい。
Based on the graph, describe how the temperature of the water changes during the first 10 minutes. How accurate is the collected data?

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もっと正確な値を測るためには、この実験方法をどのように工夫をすればよいか意見を述べなさい。
Suggest how the experimental method could be improved to collect more precise and accurate data.

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MYP7 – Entrance Exam Assessment Criteria

Natural and Social Sciences



Tamagawa Academy
IB World School

Criterion A: Data Collection and Processing

LEVELS	ASPECT 1: Recording raw data	ASPECT 2: Processing raw data	ASPECT 3: Presenting processed data
Complete 2	Records appropriate quantitative and associated qualitative raw data, including units where relevant.	Process the quantitative raw data correctly.	Presents processed data appropriately and, where relevant, includes errors and uncertainties.
Partial 1	Records appropriate quantitative and associated qualitative raw data, but with some mistakes or omissions.	Process quantitative raw data, but with some mistakes and/or omissions.	Presents processed data appropriately, but with some mistakes and/or omissions.
Not at all 0	Does not record any appropriate quantitative raw data or raw data is incomprehensible.	No processing of quantitative raw data is carried out or major mistakes are made in processing.	Presents processed data inappropriately or incomprehensibly.

Criterion B: Skills

LEVELS	ASPECT 1: Information	ASPECT 2: Analysis	ASPECT 3: Conclusion
Complete 2	Selects and uses relevant information.	Work shows good level of critical analysis.	Arguments, decisions and judgments are supported and balanced but superficial.
Partial 1	Selects and uses some relevant information.	Work shows satisfactory evidence of analysis.	Presents processed data appropriately, but with some mistakes and/or omissions.
Not at all 0	Does not use any relevant information.	Work lacks the required depth in analysis.	Arguments, decisions or judgments are not relevant and/or absent.

TOTAL ACHIEVEMENT LEVEL

GRADE BOUNDARIES	
PERCENTAGE SCORE	ACHIEVEMENT LEVEL
20	0 – 2
40	3 – 4
60	5 – 7
80	8 – 10
100	11 – 12