IEA - Data Enhancement Project

Questionnaire printing

Study: SC2

Population: 1

Instrument: STD_1

Student Science Achievement Test (1D)          Population 1

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1   The pictures below show a bean plant at different stages.


                [ 1 small plant in jar ]        [ 2 beans ]

       [ 3 large plant in soil bearing beans ]  [ 4 bean germinating ]


      In what order do these stages occur?

           A      3, 2, 1, 4
           B      2, 4, 1, 3
           C      1, 2, 3, 4
           D      4, 2, 3, 1
           E      4, 3, 2, 1

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P1D01
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2   Sometimes seeds and fruits stick to animals and are carried to new places
    where they will later grow.

    Which one of the following is most likely to be spread this way?


         Maple seed      Bean pod        Burr
           [ A ]           [ B ]         [ C ]


            Acorn         Wheat Seed
           [ D ]            [ E ]

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P1D02
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3   Which one of the following groups refers only to living things?

           A      clouds, fire, rivers
           B      fire, rivers, trees
           C      river, birds, trees
           D      birds, trees, worms
           E      trees, worms, clouds

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P1D03
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4   Which diagram shows the easiest way to move the stone?


      [ 5 pictures showing moving by hand and differing
        levers: height and place of fulcrum. Picture E
        shows use of a 'lever' with two fulcrums ]




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P1D04
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                                      2

5   A meal consists of milk, bread and butter, meat, and cake.  To obtain
    a more balanced diet which one of the following should be added to
    this meal?

        A       a green vegetable
        B       chicken or fish
        C       cheese
        D       coffee
        E       ice cream

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P1D05
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6   A spring is used to make a weighing machine. A pointer attached to the
    bottom of the spring shows the weight. The diagrams show the machine:
    (1) empty, (2) with a small rock, and (3) with a large rock.


        [ pointer at 0 ]  [ pointer at 2 ]  [ pointer at 8 ]

            Diagram 1           Diagram 2           Diagram 3


    How many times heavier is the large rock than the small rock?

        A       Same weight as small rock.
        B       2 times as heavy.
        C       4 times as heavy.
        D       6 times as heavy.
        E       8 times as heavy.

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P1D06
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7   Fish need air to live.  Where do fish get most of this air?

        A       from air at the surface of the water
        B       from air dissolved in the water
        C       from swallowing air bubbles in the water
        D       from eating water plants
        E       from sucking rocks and sand

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P1D07
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8   Look carefully at the diagrams below.

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                    |                               |
         ----------|----------         ----------|----------
        / \         / \               / \                 / \
       /   \       /   \             /   \               /   \
      /__F__\     /_***_ \         /_F_F_\             /__R__\
           Diagram 1                       Diagram 2
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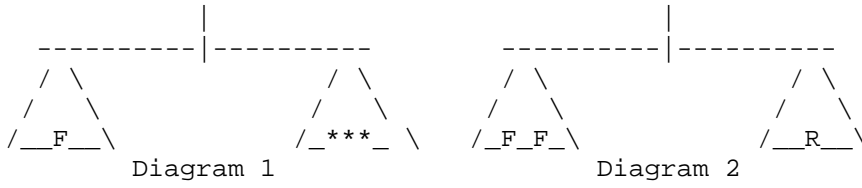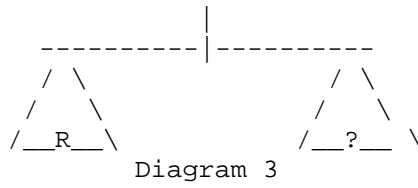
Diagram 1 shows that three equal weights (*) are needed to balance a tin
of fish (F).  Diagram 2 shows that two tins of fish (F) balance one bag
of rice (R).

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                    |
         ----------|----------
        / \                 / \
       /   \               /   \
      /__R__\             /__?__ \
           Diagram 3
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How many weights are needed in Diagram 3 to balance the bag of rice (R)?

    A       1 weight
    B       2 weights
    C       3 weights
    D       4 weights
    E       6 weights

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P1D08
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