

Обучение и оценивание для будущего

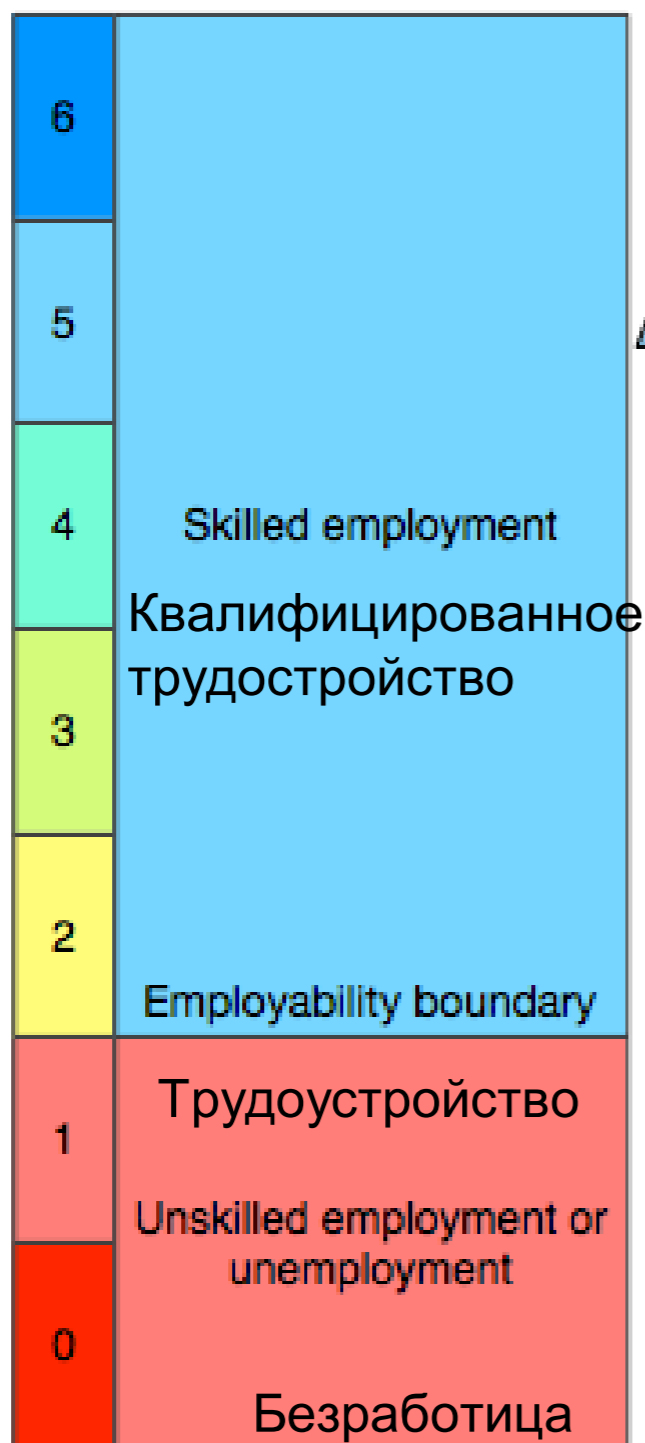


Прогноз PISA



PISA levels

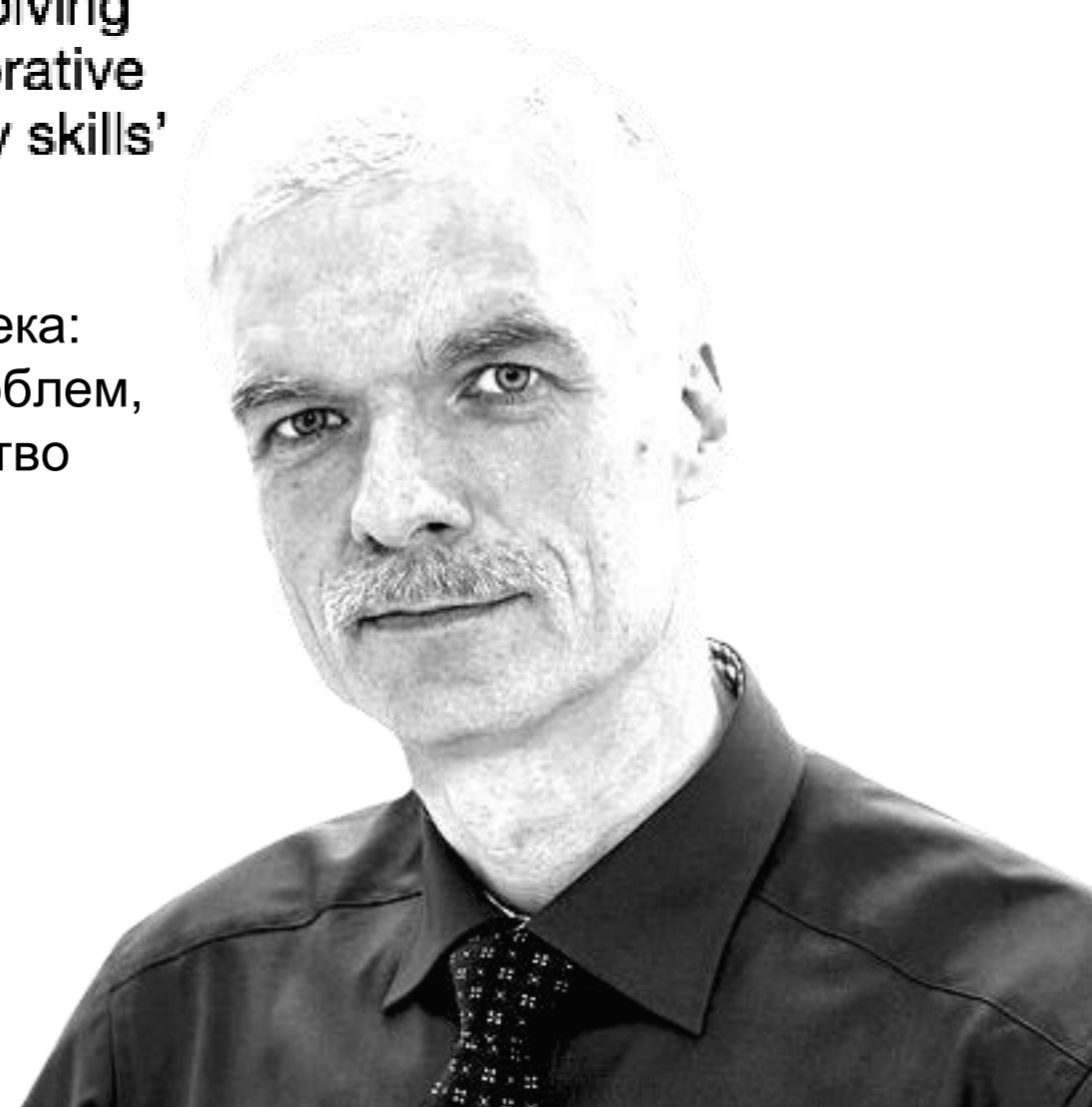
Уровни
PISA



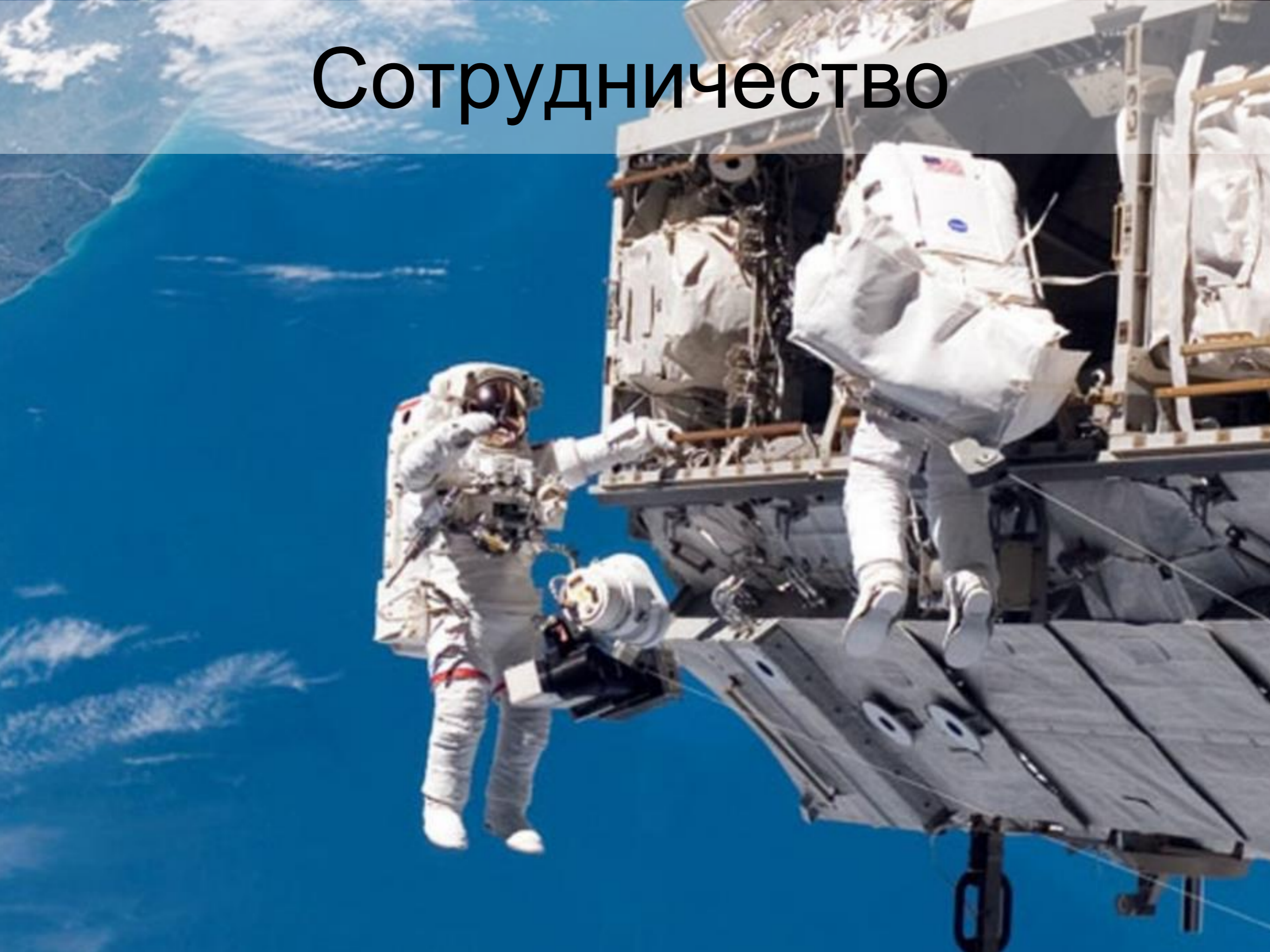
Increase in
problem-solving
and collaborative
'21st century skills'

Умения 21 века:
решение проблем,
сотрудничество

Андреас
Шляйхер



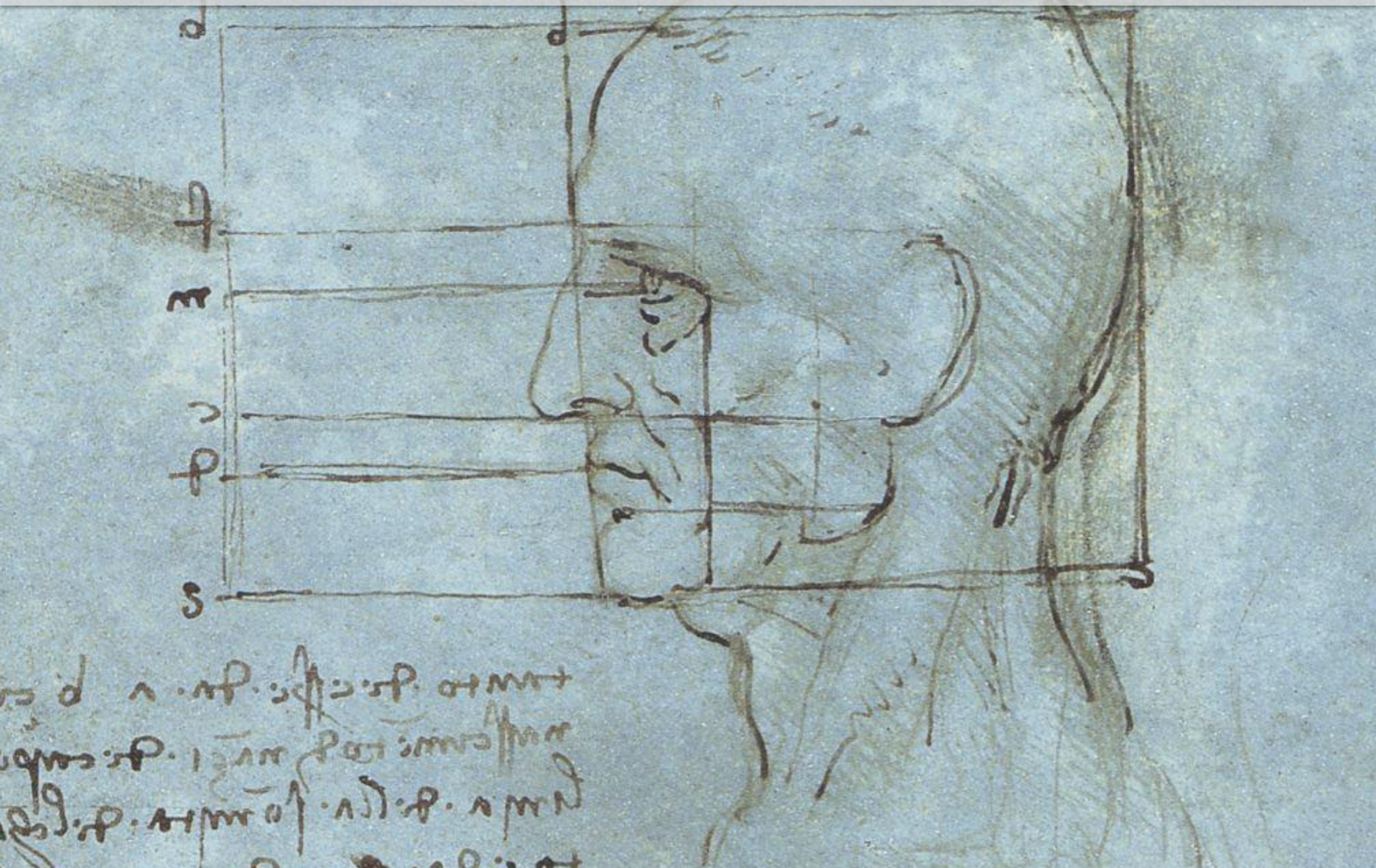
Сотрудничество



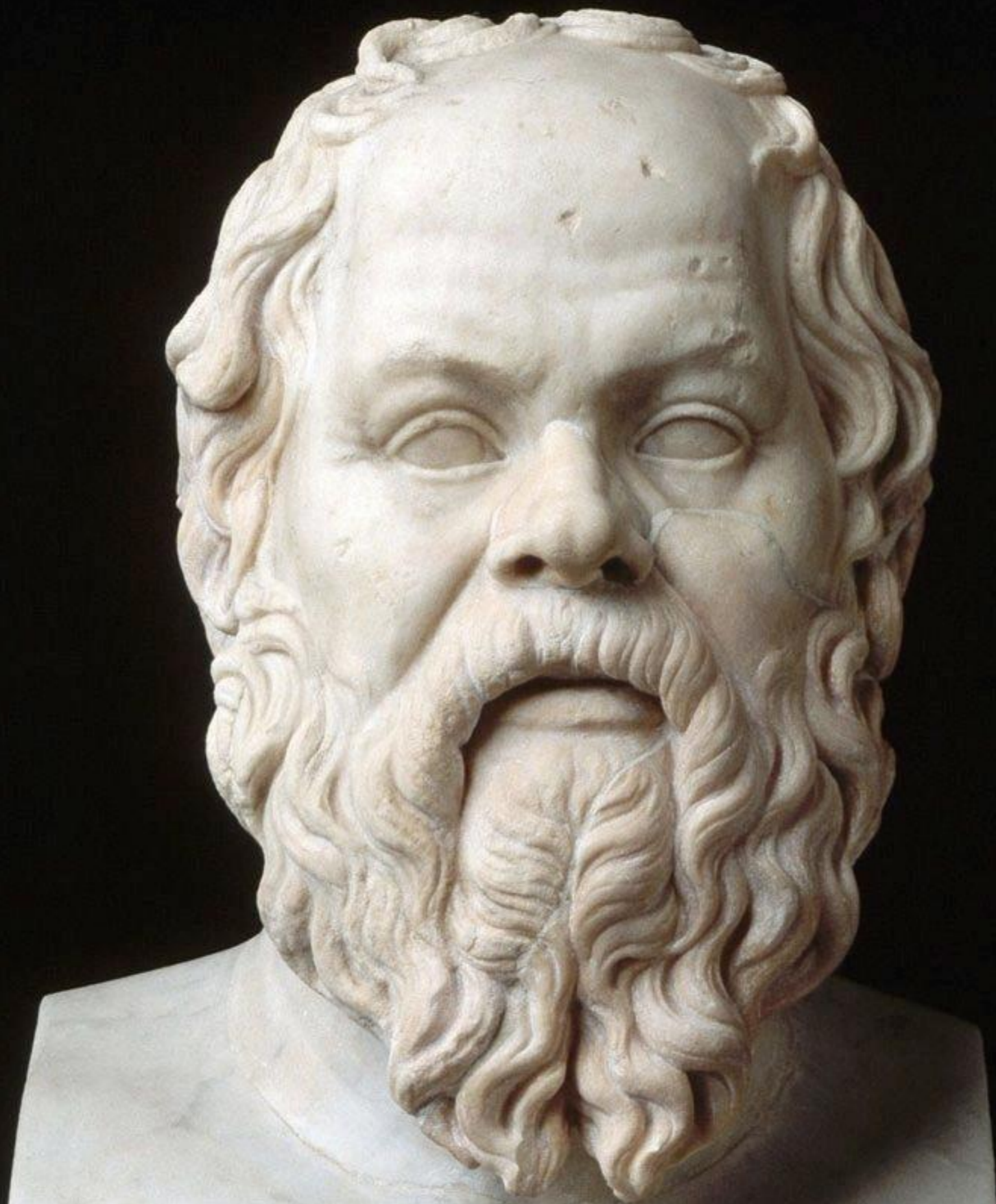
Персонализация обучения



Критическое мышление и анализ







Метод Сократа

1. Поиск истины

2. Развитие умений аргументации

3. Понимание мышления ученика







“Национальный парк Лэйк
Дистрикт особенно
популярен среди
туристов в летние
месяцы.”



“Национальный парк Лейк
Дистрикт особенно
популярен среди
туристов в летние
месяцы”

“Если Вы хотите
забронировать коттедж
нажмите на ссылку
внизу.”

MOON LANDING HOAX *theory or fact?*
**Top 10 Reasons Why No Man Has
Ever Set Foot on the Moon.**

Was the MOON LANDING fake? YES.

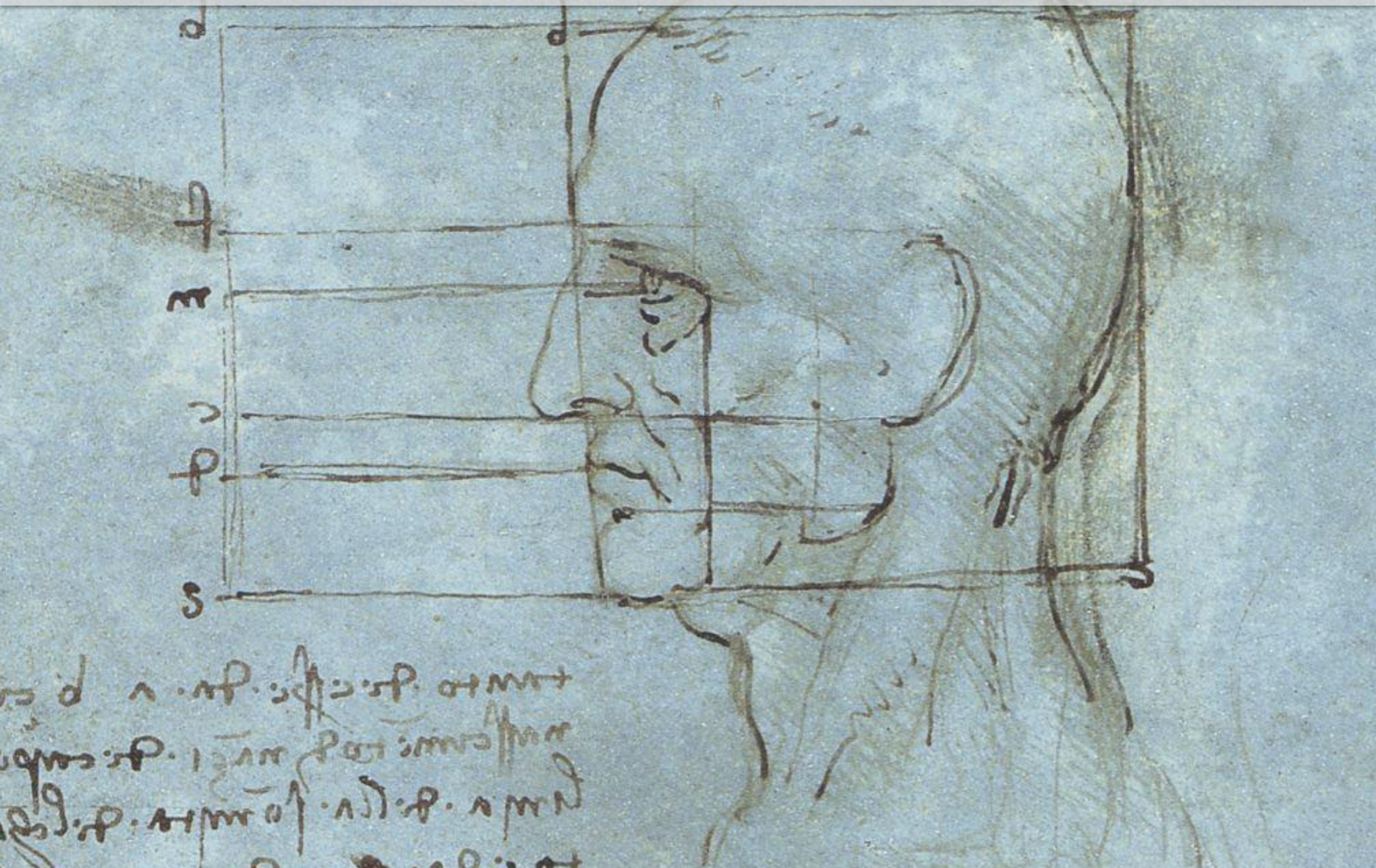
**DNA PROVES THAT
ELVIS IS ALIVE !**

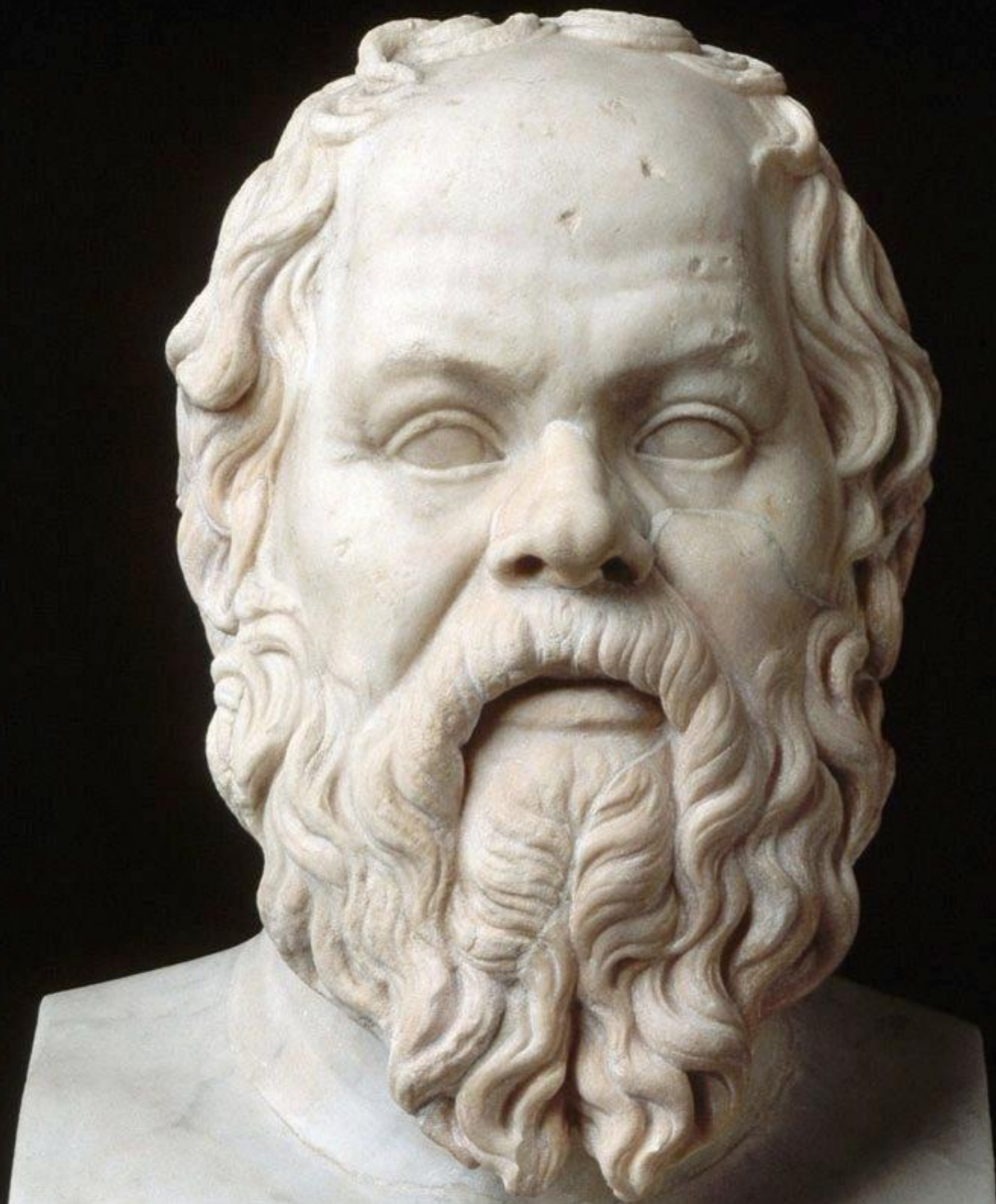


10 свидетельств того,
что человек никогда не
был на Луне.

Анализ ДНК доказал,
что Элвис жив!

Критическое мышление и анализ





Технология и оценивание



Итоговое оценивание

COMPETITIVE EXAMINATION FOR ENTRANCE TO SECONDARY AND CENTRAL SCHOOLS, 1943.

TUESDAY, 6th APRIL, 9-15 a.m. to 10-30 a.m..

WRITTEN ARITHMETIC.

(Except in Question 1 you may lose marks if you do not give all necessary working).

1. Copy down the following statements and complete them:—

- | | | | |
|-------------------------------|---------|-------------------------------|------------|
| (a) 1 chain = | yards. | (b) 2 stones = | lbs. |
| (c) 3 gallons = | pints. | (d) $\frac{2}{5}$ ths of £1 = | shillings. |
| (e) $2\frac{1}{2}$ times 28 = | | (f) 6 score = | dozen. |
| (g) 3 cwts. = | stones. | (h) £1 6s. 8d. = | pence. |
| (i) $12 \times 17 =$ | | (j) $\frac{8 \times 9}{4} =$ | |

2. Find the values of:

- | | |
|---|-----------------------------|
| (i) 4297×673 | (ii) $58.64 - 2.39 + 27.68$ |
| (iii) $(\frac{2}{3} + \frac{1}{4}) \times 6\frac{1}{2}$ | (iv) $59.314 \div 4.7$ |

3. (a) Add together 5 cwts. $2\frac{1}{2}$ stones and 30 lbs. and give your answer in lbs.
(b) Divide £50 6s. 3d. by 23.

4. At different shops I spend 16s. 9d., 3s. 4d., 2s. 11½d. and 7s. 2½d. How much shall I have left if I started with £2?

5. By reducing the amount of gas used in a house by one eighth the gas bill was reduced by 5s. 4d.

- (a) What was the old gas bill, and
(b) What is the new gas bill?

6. Five pennies side by side in a line measure 6 inches. How much is obtained for a charity when one mile of pennies (placed in line, side by side) is collected? Answer in £

7. A car uses petrol at the rate of 14 miles per gallon in towns and 25 miles per gallon in the country. A milk dealer travels $12\frac{1}{2}$ miles per day in the country and 6 miles per day in towns. How much petrol will he use in 4 weeks? (7 days per week).

8. An aeroplane left its base at 9 a.m. and flew to an aerodrome 1500 miles away at a steady speed. It came down, took $1\frac{1}{2}$ hours to refuel and then returned at the same speed to its base, where it arrived at 11 p.m. Find its speed in miles per hour.

9. A man's salary is £520 per year. He pays £80 per year for income tax, £36 per year insurance and £2 per week for his rooms. If he saves $\frac{2}{5}$ ths of the remainder, how much does he save in a year. (Take 1 year = 52 weeks).

10. A rectangular swimming pool is 25 yards long and 10 yards wide. It has a path round it 3 feet wide. How much will it cost to put a fence round the outside of the path at 5s. 6d. per yard?



На ошибках учатся

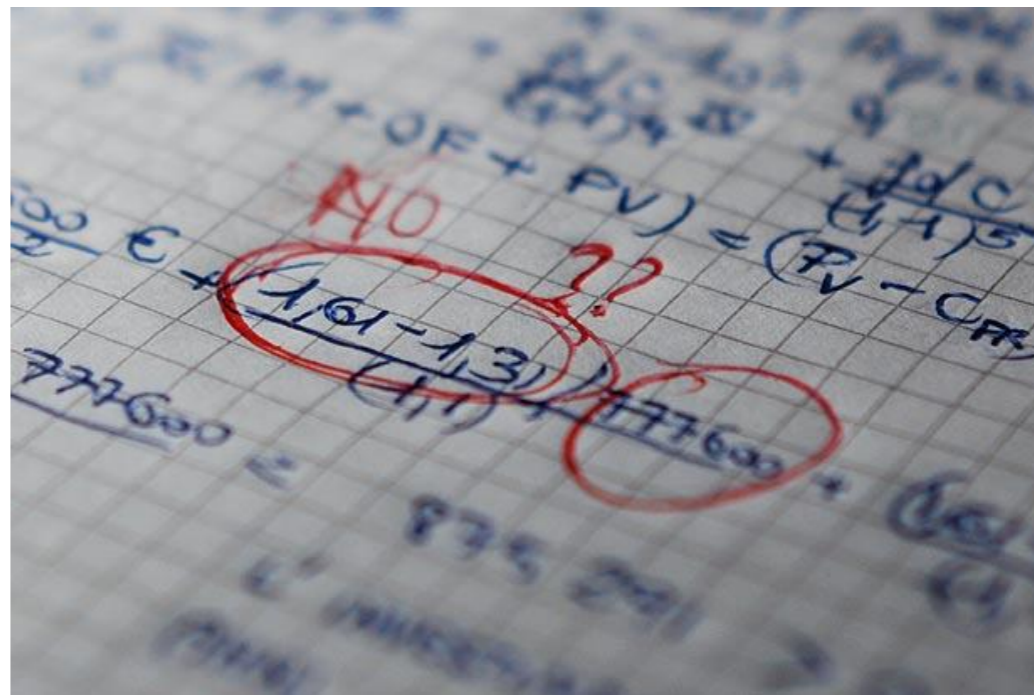


Формирующее оценивание

Что я должен сделать ,
чтобы этого
достигнуть?



Модели оценивания



Ежедневное

Периодическое

Транзитное



Модели оценивания



Транзитное

Практики в классе

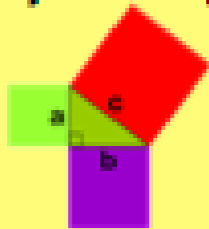


Анализ учебного плана (Curriculum)

Curriculum

Ключевая
концепция

Key Concept



Точка отсчёта

Вопросы

Оценивание

Benchmark

Questions

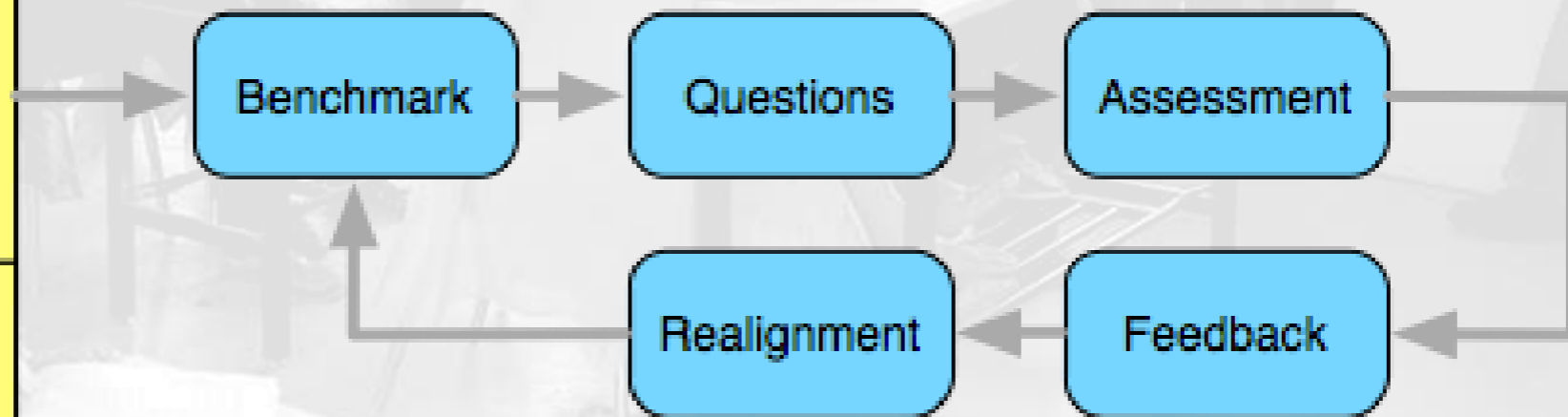
Assessment

Realignment

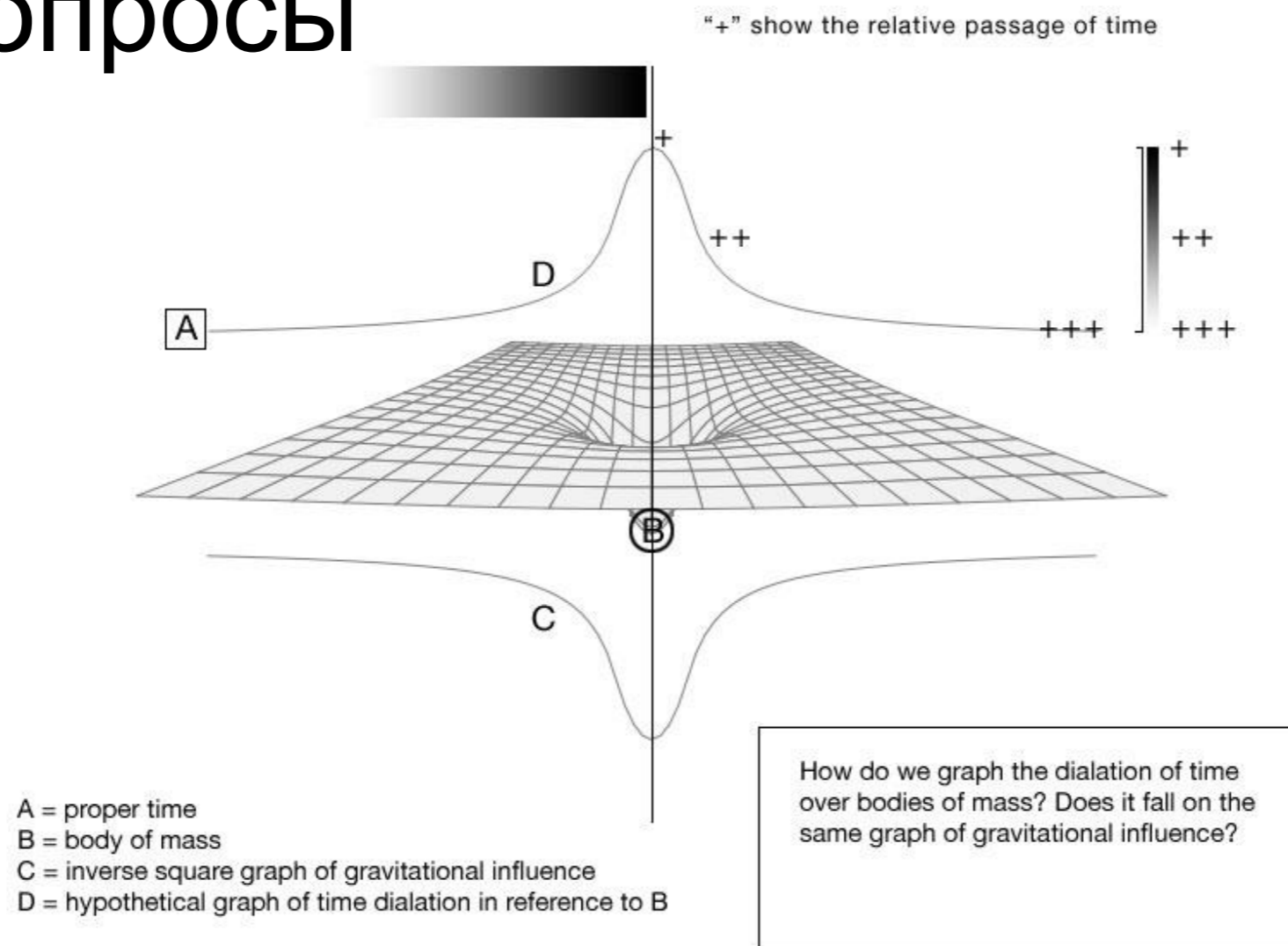
Feedback

Корректировка курса

Обратная связь



Ученики задают вопросы

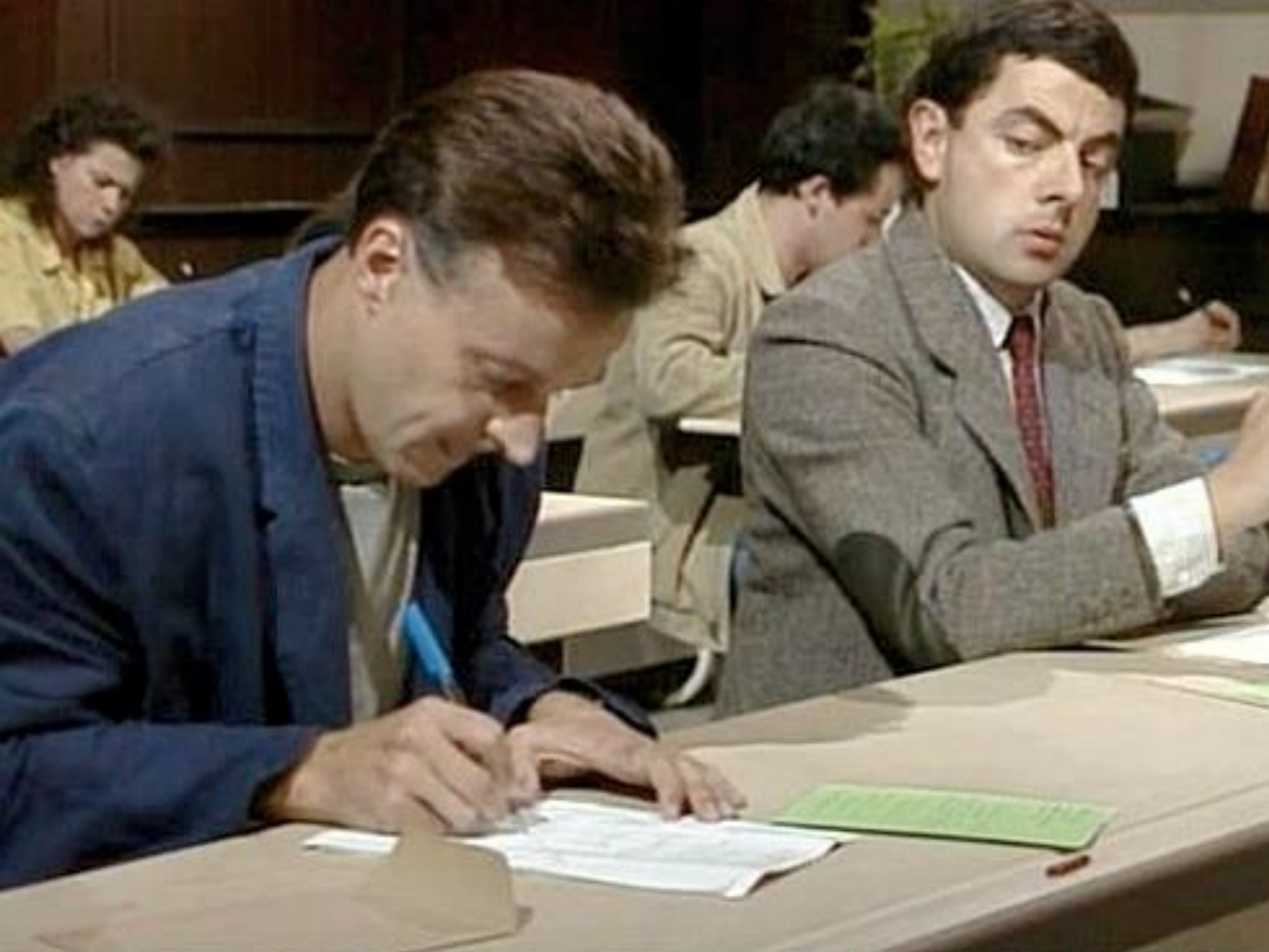


Что будет если время пойдет вспять?

Что я увижу,
если буду находиться в
точке D?

Что будет , если B – это черная дыра?

Где я буду стареть медленнее
- в точке D или A?



GATESHEAD EDUCATION COMMITTEE.

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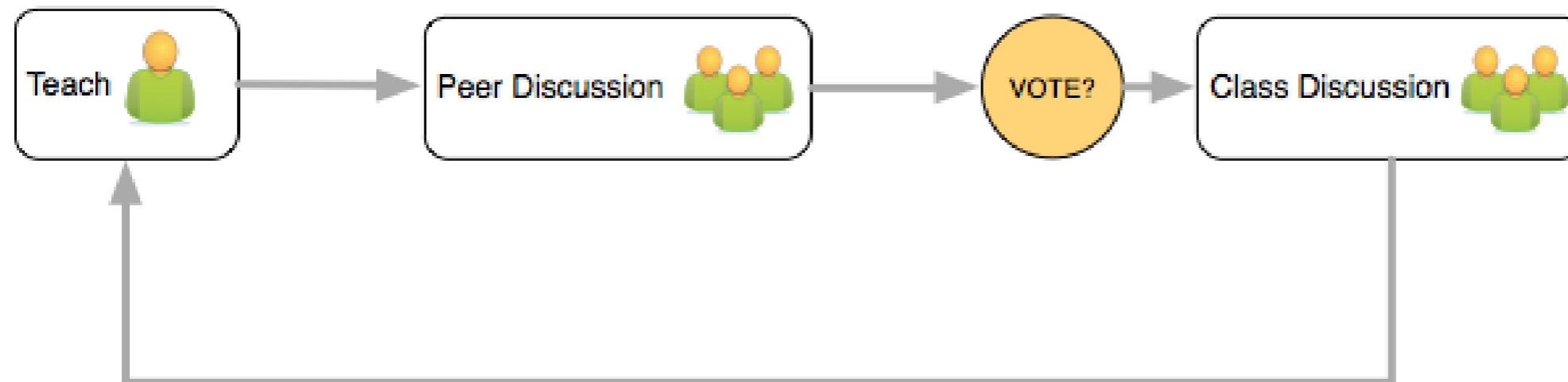
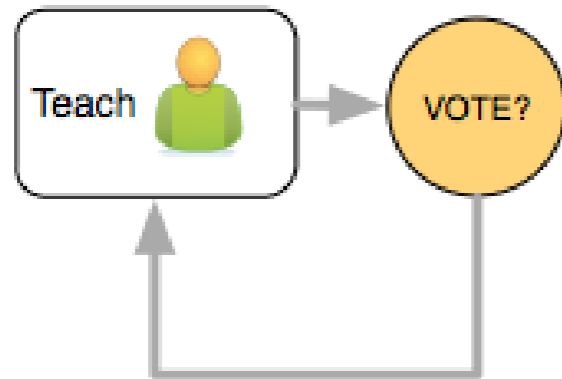
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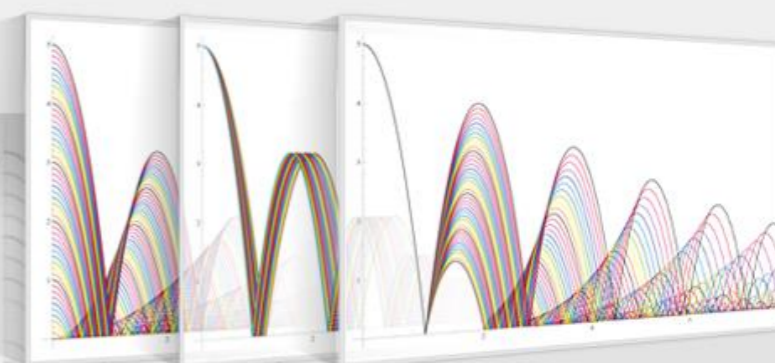
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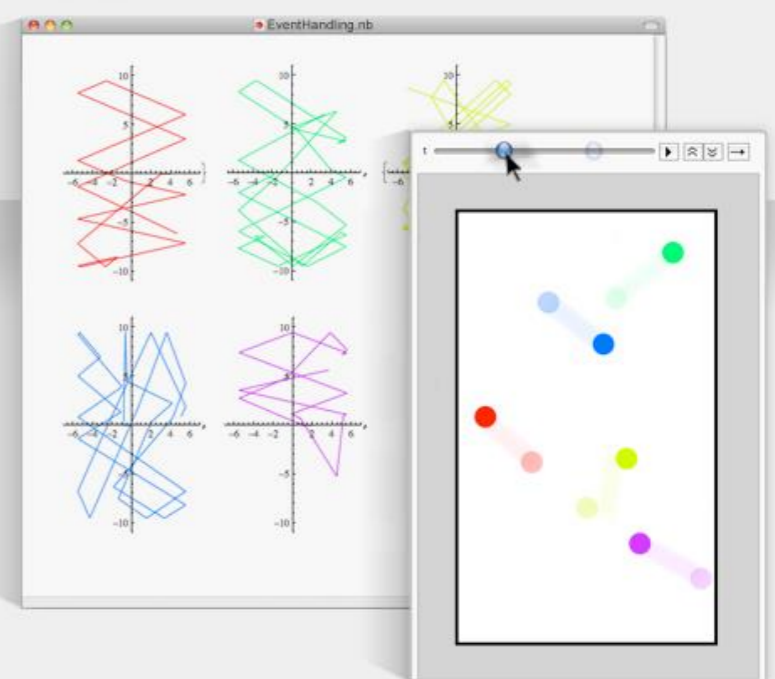
Совместный поиск ответа



Современные технологии
способствуют
оцениванию умений
21 века с помощью
моделирования систем,
проектного обучения,
больших данных...



```
BouncingBalls
Boolean collision(nr,nr) "collision between balls i and j";
Boolean wallhitLeft(nr) "collision with wall at the left";
Boolean wallhitRight(nr) "collision with wall at the right";
Boolean wallhitTop(nr) "collision with wall at the top";
Boolean wallhitBottom(nr) "collision with wall at the bottom";
parameter Real wallx=10,wallx=10 "distance to the wall from coordinates x=0,y=0";
Real a,dv "help variables for collision calculations";
equation
der(p)=v;
der(v)=a;
for i in 1:nr loop
  for j in 1:nr loop
    collision[i,j]=sqrt((p[i,1]-p[j,1])^2+(p[i,2]-p[j,2])^2)<1;
  end for;
end for;
for i in 1:nr loop
  wallhitLeft[i]=p[i,1]<-wallx+1/2;
  wallhitRight[i]=p[i,1]>wallx+1/2;
  wallhitTop[i]=p[i,2]>10;
  wallhitBottom[i]=p[i,2]<-10;
end for;
algorithm
for k in 1:nr loop
  when {wallhitLeft[i],wallhitRight[i]} then
    reinit(v[i,1],-pre(v[i,1]));
  end when;
  when {wallhitTop[i],wallhitBottom[i]} then
    reinit(v[i,2],-pre(v[i,2]));
  end when;
end for;
end BouncingBalls;
```





Метод Сократа

1. Поиск истины

2. Развитие умений аргументации

3. Понимание мышления ученика

ClassFlow.com/learner

