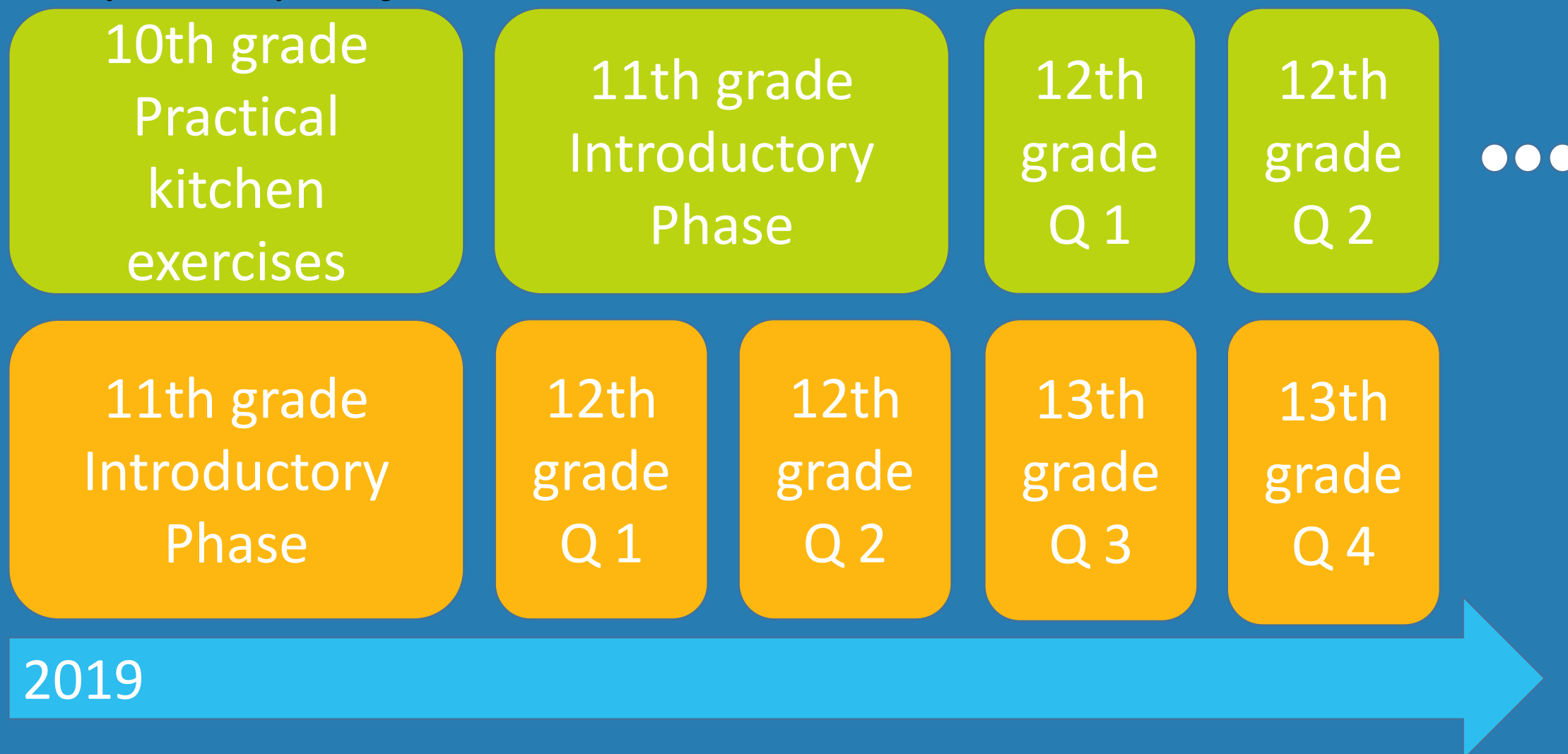# Nutrition in competitive sports

A pilot project at the Brillat Savarin School for pupils of the State Ballet School Berlin
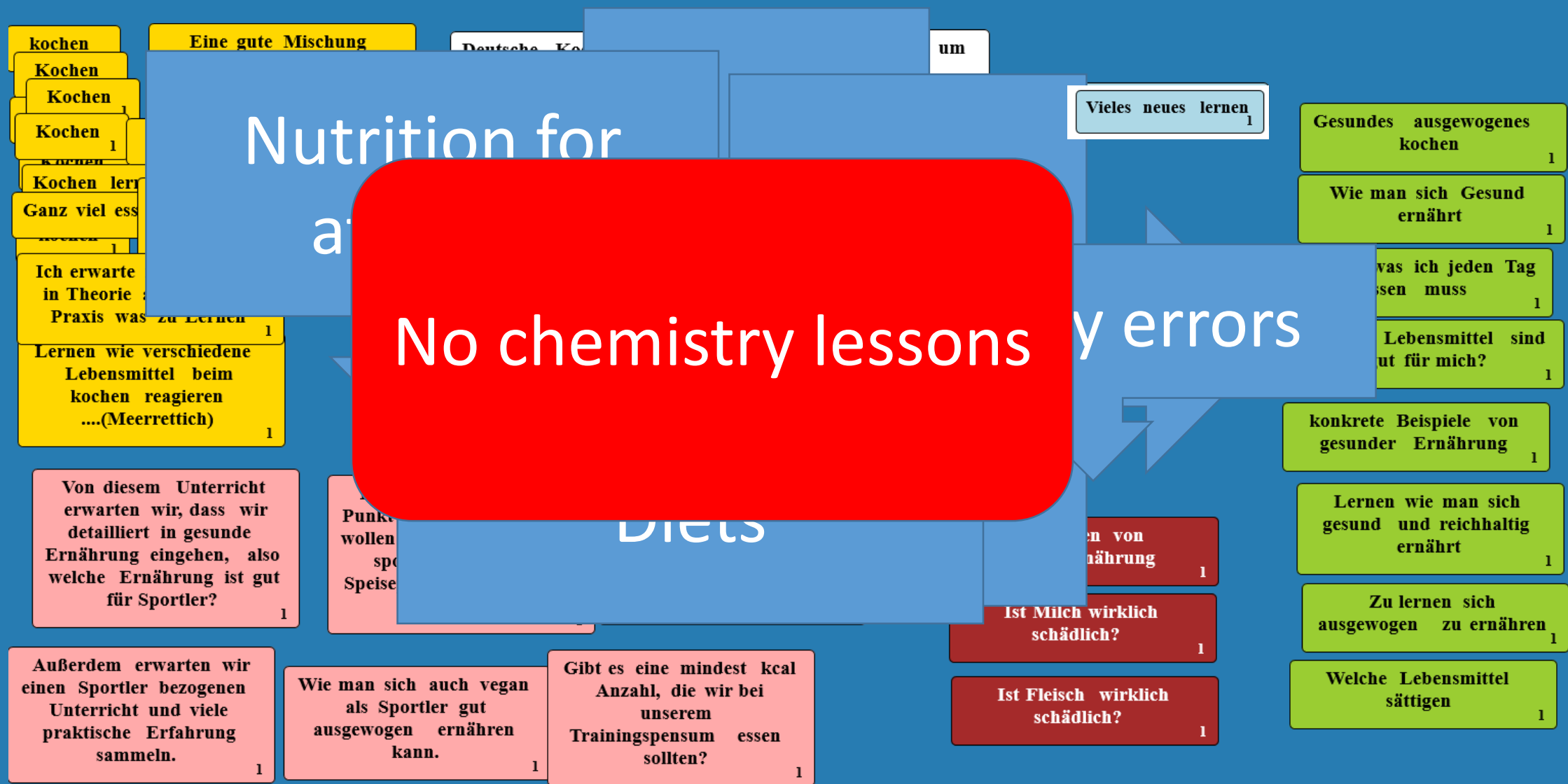
Headmaster: Jürgen Dietrich
Head of department: Dr. Andrea Stegmann
Head of nutritional science: Claudius Schäfer

State Ballet School Berlin - a pilot project

OSZ GASTGEWERBE BRILLAT-SAVARIN-SCHULE

| 10th grade Practical kitchen exercises | 11th grade Introductory Phase | 12th grade Q 1 | 12th grade Q 2 | ••• |

| 11th grade Introductory Phase | 12th grade Q 1 | 12th grade Q 2 | 13th grade Q 3 | 13th grade Q 4 |

2019

Practical kitchen exercises (10th grade)

Müslimuffins

2 Eier

125 g Apfelmus (ohne Zucker)

70 g fettarmer Joghurt

100 ml fettarme Milch

300 g Müsli

4 EL Agavendicksaft

Vanillearoma

1 Pck. Backpulver

Salz

Eier verquirlen. Apfelmus, Joghurt und Milch hinzugeben und alles miteinander vermengen. Eine kleine Menge des Müslis als Topping für später beiseitestellen. Restliches Müsli zu der Eimasse hinzugeben und zu einer Art „Teig" verrühren. Agavendicksaft, Backpulver, Vanillearoma und eine Prise Salz unterheben. „Teig" in Muffinförmchen abfüllen. Das aufbewahrte Müsli über die Muffins streuen. Im vorgeheizten Backofen bei 180° C für 35 Minuten backen.

Müslimuffins (ca. 100g enthalten 810kJ)

Protein = 14,83%
Fett = 20,46%
Kohlenhydrate = 60,02%
Ballaststoffe = 4%
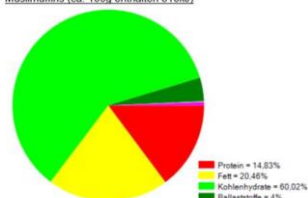
Nährstoff	Menge	Referenz	%	100%
Energie (Kilojoule)	812,5 kJ	9334,5 kJ	8	
Kohlenhydrate, resorbierbar	30,1 g	302 g	9	
Ballaststoffe	4,09 g	30,0 g	13	
Fett	4,65 g	75,7 g	6	
Eiweiß (Protein)	7,21 g	82,4 g	8	
Eisen	1,70 mg	12,0 mg	14	
Calcium	72,4 mg	1,20 g	6	
Magnesium	46,1 mg	400 mg	11	
Vitamin B1-Thiamin	195 µg	1,40 mg	13	
Vitamin B6-Pyridoxin	150 µg	1,60 mg	9	
Vitamin B12-Cobalamin	0,39 µg	3,00 µg	12	
Vitamin D-Calciferole	0,47 µg	20,0 µg	2	
Wasser	51,4 g	2,16 kg	2	

KH-AUFNAHME SCHNELL

MONOSACCHARIDE (EINFACHZUCKER) GESCHMACK SÜSS — GLUCOSE TRAUBEN-ZUCKER · FRUCTOSE FRUCHT-ZUCKER · GALACTOSE SCHLEIM-ZUCKER

DISACCHARIDE (ZWEIFACHZUCKER) GESCHMACK SÜSS — MALTOSE MALZZUCKER · SACCHAROSE HAUSHALTSZUCKER · LACTOSE MILCHZUCKER

OLYGOSACCHARIDE (MEHRFACHZUCKER) GESCHMACK SÜSS

POLYSACCHARIDE (VIELFACHZUCKER) GESCHMACK NEUTRAL

KH-AUFNAHME LANGSAM

http://blog.swarmprotein.com/kohlenhydrate-grundlagen-treibstoff-des-trainings/

47/48	**Energie für Zwischendurch** (gesunde Snacks selbstmachen → Müsliriegel, Müslimuffins, Chiapudding, Dattelbällchen oder andere Power Balls)	Unterscheidung der Zuckerarten
49/50	**Winterzeit ist Suppenzeit** (Kürbiscremesuppe, klare	Nährstoffverluste in der LM-Zubereitung Schnittarten für Gemüse

OSZ GASTGEWERBE
BRILLAT-SAVARIN-SCHULE

Selection of skills taught during the Practical Kitchen Exercises
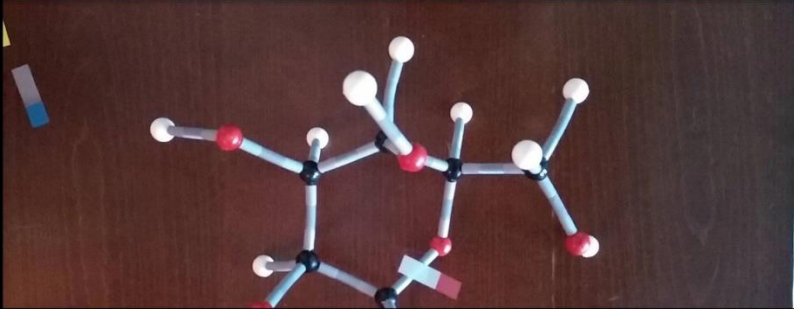
- Applying DG... ...mmendations
- Evaluating...
- Applying nutr... ...tion methods
- Evaluating charts...
- Selecting food and be... ...to their suitability for training and... ...n phases

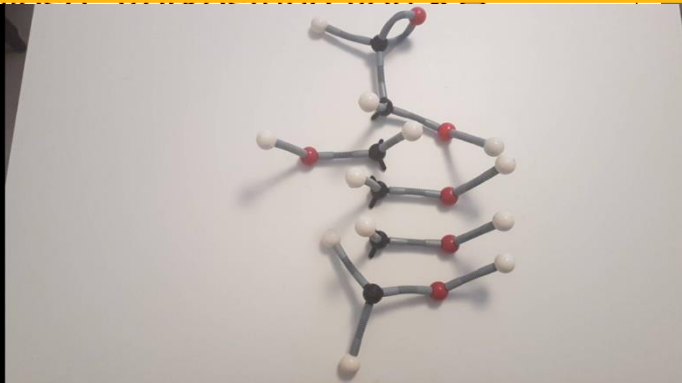**Making conscious dietary decisions**

Introductory Phase

01.10.2019	Analyse des Tageskostplans in Bezug auf die Empfehlungen, Kalorimetrie, BMI, Verteilung der Energie auf die energieliefernden Nährstoffe und Mahlzeiten
08.10.2019	**Herbstferien (Ballettschule)**
15.10.2019	**Herbstferien (Keine Herbstferien in der Ballettschule)**
29.10.2019	Benennung von Monosacchariden; Chemischer Aufbau von Glukose und Fruktose
05.11.2019	Schüler erstellen Explainity zu Disacchariden (Unterricht mit dem Fachseminar) Benennung von Di- und Polysacchariden

Selection of skills taught during the Introductory Phase

- Explaining the interpl... ...en nutrition and health
- Creating and analy... ...nces
- Applying science... ...ding to various situations
- Applying food c... ...t of digestion
- Reflecting one's ow... ...od
- Learning the responsible...
- Working with technical texts

Applying food-related basics of biochemistry and physiology
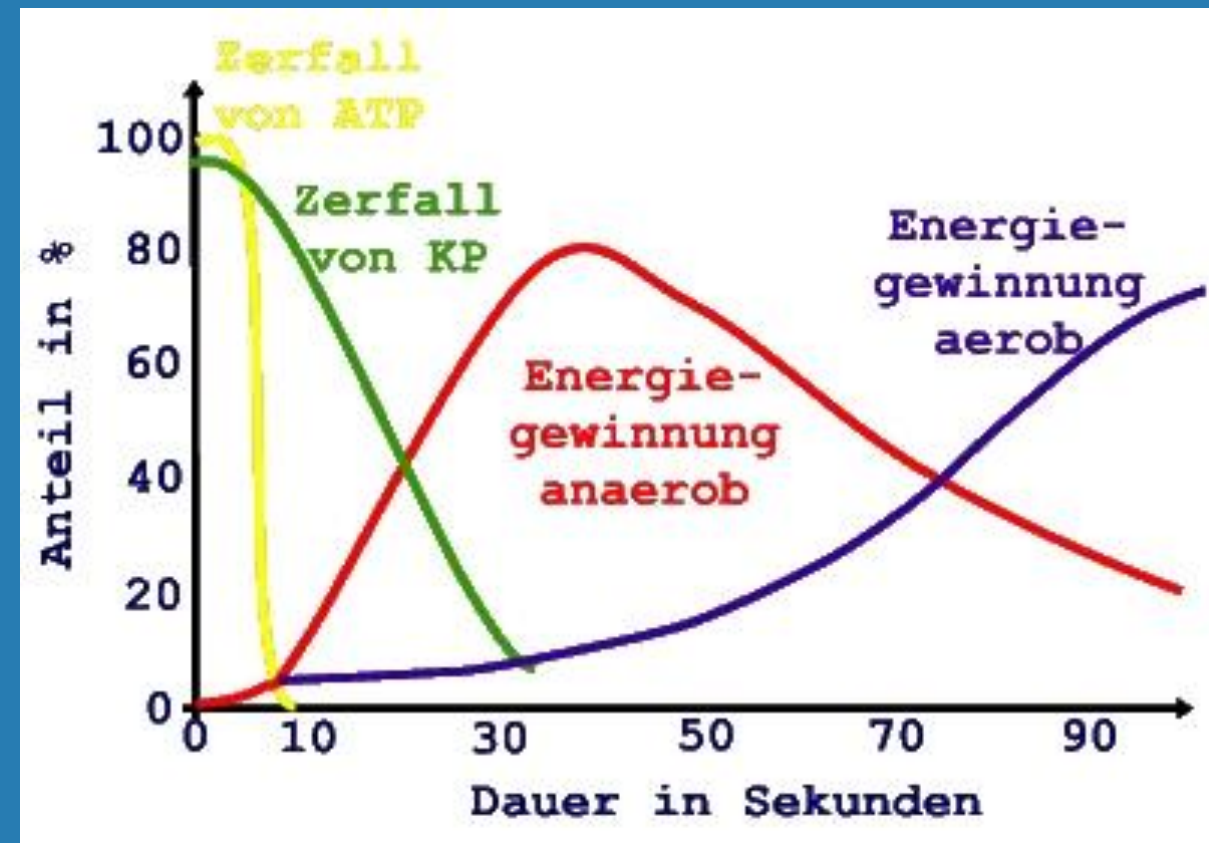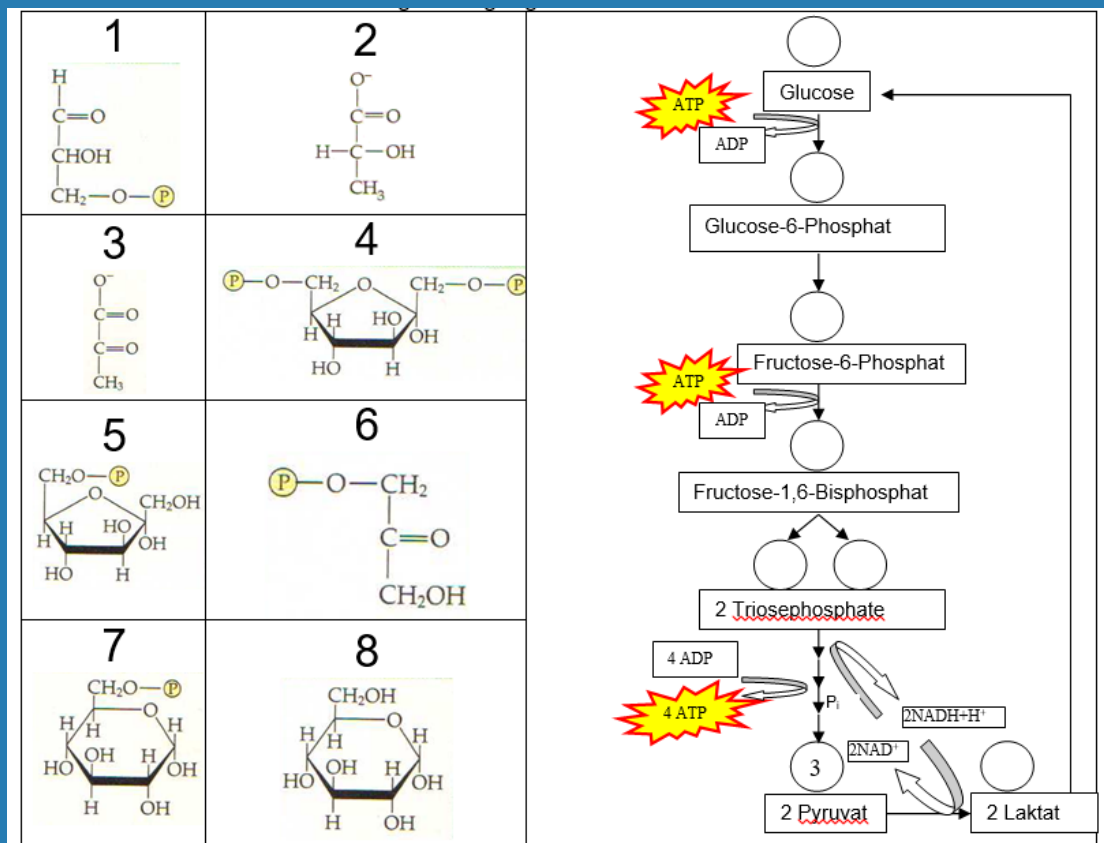
Qualification Phase

Task-based learning:

Dear students of the nutrition class AB7gT1,

My name is Emilia, I am 16 years old and I train three times a week in the ballet school in our neighbourhood. The first 45 minutes always go very well, then we take a short break and in the second half I usually tend to lose my strength a bit.

My mother says I should refrain from eating carbohydrates. I would appreciate you giving me some arguments to inform her on what is good for me. She puts a lot of pressure on me and some valid arguments would really be helpful. I am counting on you!

Q 1- Q 2

Selection of skills taught during the Qualification Phase

- Criteria-based description [...] plex biochemical and physiological metabolic pathways in h[...] [...]isms

- Analysis, evaluation [...] [...]ecific diet plans for selected population groups [...] [...]thletes, adolescents)

- Assessment of selec[...] [...] pre-competition phase, competition phase, sup[...]

- Metabolic changes due to m[...] [...]ut, celiac disease, HLP)

- Creation of a product for nutrition [...] [...]ewspaper articles, role play, flyer etc.)

- Assessment of reduction diets (Bulimia ne[...] [...]nervosa)

Applying biochemical metabolic processes to high-performance sports

Inhalt: