

STEAM & Sports

Lesson 2 - Video production and editing

Video production and editing

Concept

In this lesson, students will be introduced to programs for creating and editing videos. They will acquire knowledge related to inserting parts of a video, merging them into a whole, adding various effects, transitions between scenes, and adding audio. Students will also acquire knowledge about the basic terms used to describe individual parts of a video. Students will:

- (Math) joining parts into a complex whole.
- (Math) executing structured strategies to find solutions.
- (Math) structuring step-by-step solutions to problems.
- (Arts) using digital tools to enhance storytelling and expression.
- (Arts) understanding composition, color, balance, rhythm and contrast.
- (Democracy and European values) understanding online rights, privacy and cyber ethics.
- (Democracy and European values) promoting responsible digital engagement

This interdisciplinary approach allows students to develop skills in collecting, analyzing and processing data. They develop knowledge of digital literacy, and at the same time use the media according to ethical principles



Learning objectives and Outcomes

Upon completion of this lesson, students will know:

1. apply the basic parts of a video
2. use and edit basic video parts
3. put parts together into a whole
4. change characteristics by connecting parts
5. insert music content into video
6. change the characteristics of the inserted music
7. add transitions between scenes in a video
8. change the transition characteristics between scenes

Students will be able to:

1. create a video with multimedia content and edit the properties of that content
2. express their creative ideas and create a multimedia work using technology

Methodology

1. Teamwork and collaborative research
2. data collection, analysis and processing
3. practical application of what has been learned through the creation of an independent work
4. Critical thinking and problem-solving activities



Educational standards in connection with sports

- Mathematics: Analysis and systematization of data needed to create a video.
- Mathematics: structuring data into a single entity
- Art: Use artistic styles, movements and techniques.
- Collaborative Creativity: Working with friends to design projects.
- Computer science: use of applications for the purpose of a unique product
- Human rights: understanding online rights, privacy and cyber ethics. Tolerance and Inclusion: Strengthening respect for cultural and religious diversity.
- Media and Democracy: Understanding the role of journalism, freedom of press and propaganda.
- Digital Responsibility: Understanding online rights, privacy and cyber ethics.

This lesson includes elements of these school subjects

1. Art
2. Mathematics
3. Computer Science
4. Collaborative Creativity
5. Human rights
6. Tolerance and Inclusion
7. Media and Democracy
8. Digital Responsibility

Timeframe

90 min – one school lesson

Students Age

10-15 years Should be between 10-15 years

Material needed

1. Computers or tablets with internet access
2. Installed program for creating and editing video work

Short description of the content

Students will master the creation and editing of videos

Sequence of Lesson

Engage (10 min)

The teacher talks to the students about the world of multimedia. She introduces them to the multimedia content that is used. She looks at the most comprehensive search engine for viewing videos with the students and makes them aware of how important video is as a permanent part of the Internet.

Explore (70 min)

Students are divided into three groups based on their age:

◦ Ages 10-11 (Basic video)

- collecting data that will be used when creating a video
- opening a video creation program and getting to know its basic parts - learning terms used for specific parts of a video - inserting sequences (parts of a video) into the timeline
- inserting transitions between sequences
- inserting music - merging sequences into a whole
- exporting a video - publishing - presenting to other students
- discussion of all students about a particular work



- **Ages 12-13 (Standard video)**

- collecting data that will be used when creating a video - opening a video creation program and getting to know its basic parts - learning terms used for specific parts of a video
- inserting sequences (parts of a video) into the timeline - inserting sequences with text - editing sequences
- inserting transitions between sequences
- inserting music
- merging sequences into a whole
- exporting a video
- publishing - presenting to other students - discussion of all students about a particular work

- **Ages 13-14 (Advanced video)**

- collecting data that will be used when creating a video
- opening a video creation program and getting to know its basic parts
- learning terms used for specific parts of a video
- inserting sequences (parts of a video) into the timeline
- inserting sequences with text
- editing sequences
- inserting transitions between sequences
- editing transitions - inserting music
- editing music
- cutting music from a specific part of a video and adding a new music
- merging sequences into a whole
- exporting a video - publishing
- presenting to other students
- discussion of all students about a particular work

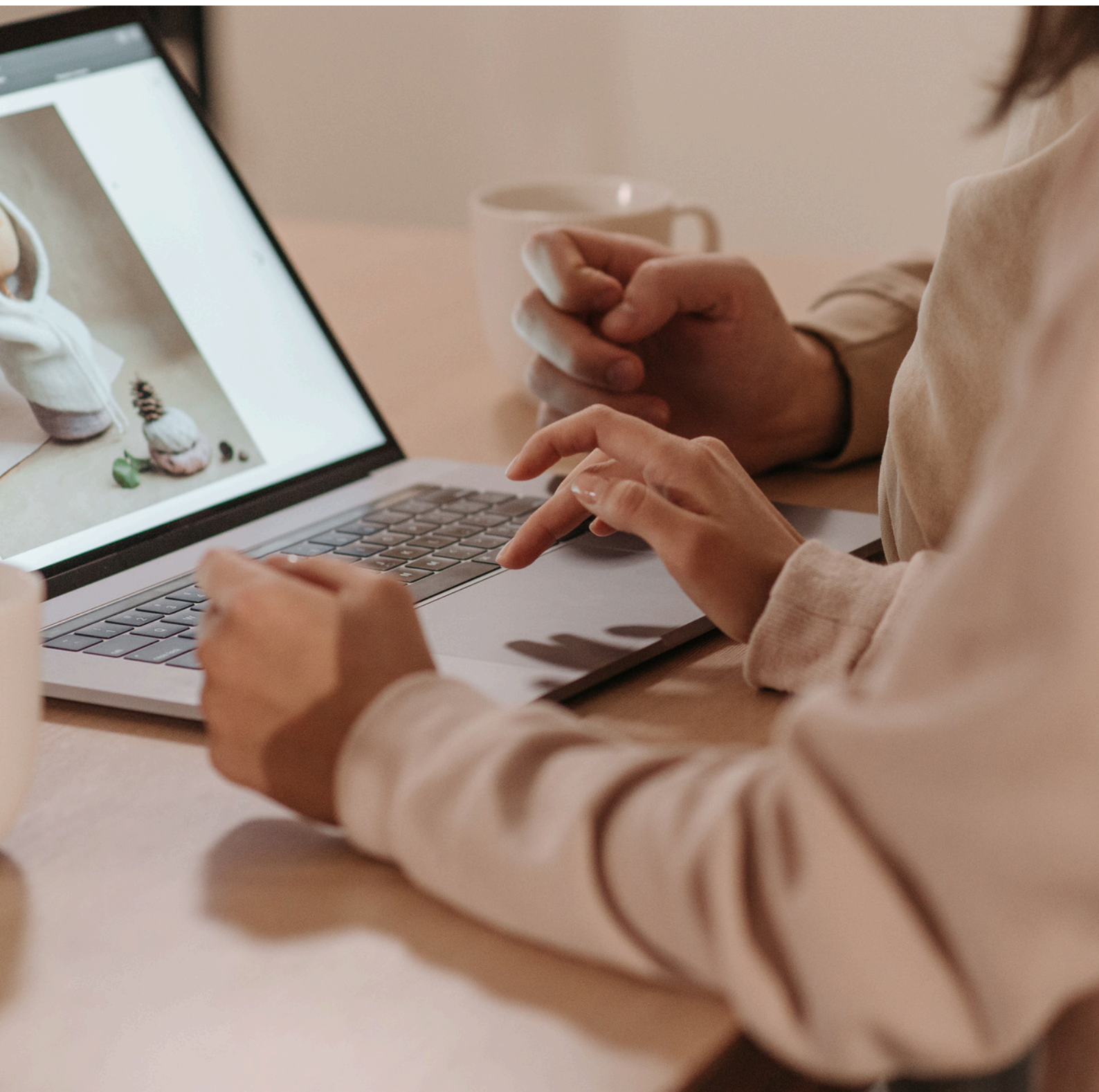
Evaluate (10 min)

- What was the most difficult part of the work for you?
- How difficult was it for you to coordinate all the information you had into one whole?
- When you made the work, were you immediately satisfied or did you change it?
- If you changed it, did you have to go and collect materials again or did you have them and just replace them?
- Are you satisfied with the results you achieved?
- Do you think your video is better, worse or similar to the others?
- How did you experience the comments from your friends?

Lesson Developer

Name: Adriana Mihalić Šebelja

Organization: OŠ Bakar



Tips for age group differentiation (for older/younger kids than indicated in the lesson)

For younger students (12-13 years) editing and creating a video with simpler parts and organization.

For older students (13-14 years) creating a video - with more complex parts that enrich the work. Years)

To which SDG(s) does the lesson relate most



SDG 5: Gender Equality

In this lesson everyone is equal. Both male and female students can actively and happily work without any disadvantages.

What Inclusivity and Accessibility measures can or should the teacher take for this lesson

Adaptation of materials: Use visual aids, large print, and clear instructions. Provide alternative formats for students with visual or reading disabilities.

Flexible participation: Allow students to contribute by drawing, speaking, or writing, depending on their strengths.

Physical accessibility: Ensure that all students can participate in the production activities by assisting them with available assistive technology.

Cultural sensitivity: Respect the cultural, educational, and religious characteristics of each individual student and allow for the production of the work, and successful presentation and recognition of the work by all other students.

Support for diverse learners: Connect students for peer support, use assistive technology, and provide additional time for research or presentations.

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Lesson 2 - Video production and editing (2)

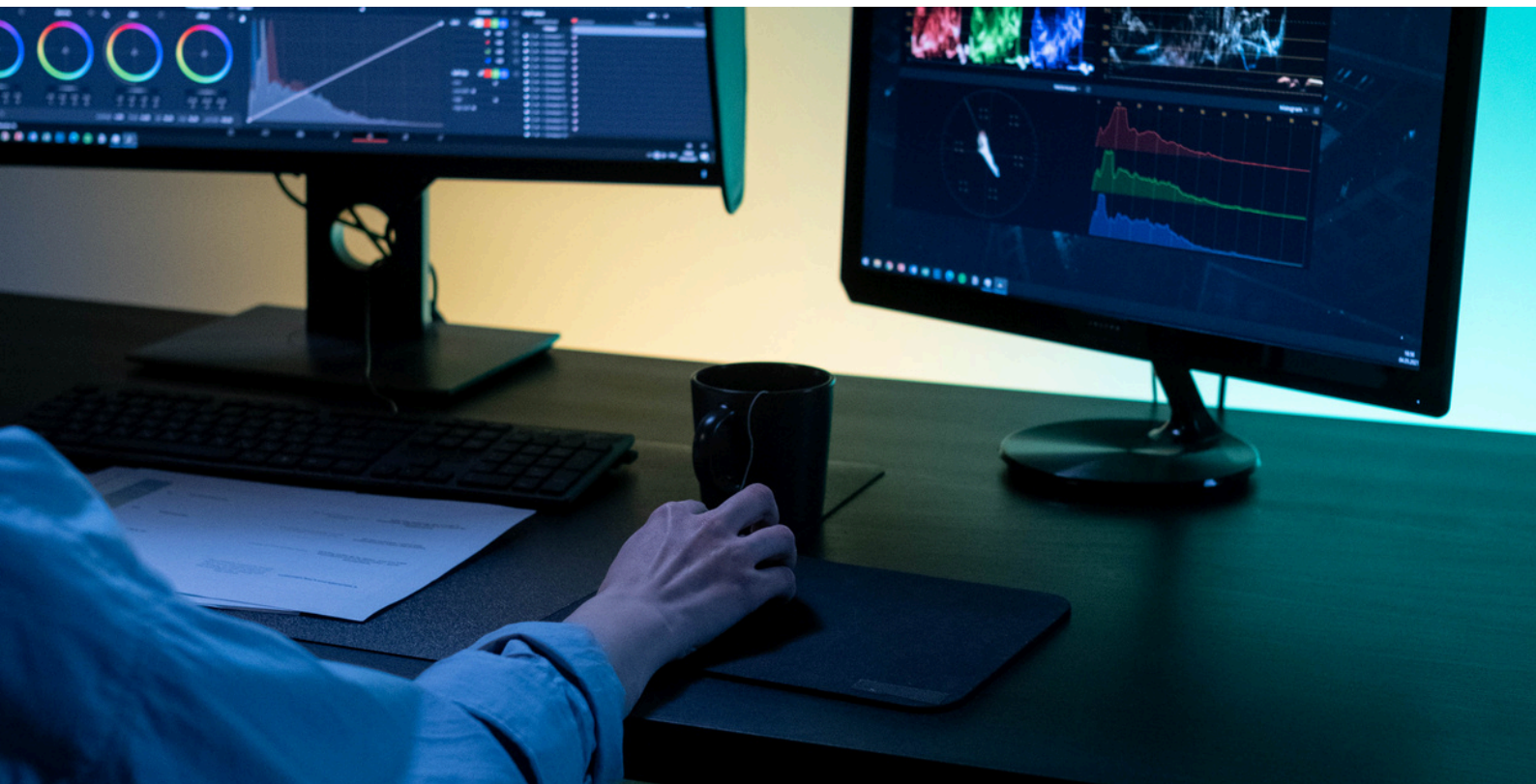
Video production and editing

Concept

In this lesson, based on previously acquired knowledge, students will combine individual previously recorded sequences - photographs and short videos - into a whole. Students will:

- 1.(Math) joining parts into a complex whole.
- 2.(Math) executing structured strategies to find solutions.
- 3.(Math) structuring step-by-step solutions to problems.
- 4.(Arts) using digital tools to enhance storytelling and expression.
- 5.(Arts) understanding composition, color, balance, rhythm and contrast.
- 6.(Democracy and European values) understanding online rights, privacy and cyber ethics.
- 7.(Democracy and European values) promoting responsible digital engagement

This interdisciplinary approach allows students to develop skills in collecting, analyzing and processing data. They develop knowledge of digital literacy, and at the same time use the media according to ethical principles.



Learning objectives and Outcomes

Upon completion of this lesson, students will know:

1. record short sequences
2. transfer sequences from a multimedia device to a computer or tablet where the video will be merged
3. edit sequences
4. import sequences into an application for creating and editing videos
5. arrange sequences in the order of their appearance in the video

Students will be able to:

1. create a video with multimedia content and edit the properties of that content
2. express their creative ideas and create a multimedia work using technology

Methodology

1. Teamwork and collaborative research
2. data collection, analysis and processing
3. practical application of what has been learned through the creation of an independent work
4. Critical thinking and problem-solving



Educational standards in connection with sports

- Mathematics: Analysis and systematization of data needed to create a video.
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This lesson includes elements of these school subjects

1. Art
2. Mathematics
3. Computer Science
4. Collaborative Creativity
5. Human rights
6. Tolerance and Inclusion
7. Media and Democracy
8. Digital Responsibility

Timeframe

45 min – one school lesson

Students Age

10-15 years Should be between 10-15 years

Material needed

1. Computers or tablets with internet access
2. Installed program for creating and editing video work

Short description of the content

Students will master the creation and editing of videos

Sequence of Lesson

Engage (10 min)

The students and the teacher review the previously acquired knowledge about creating and editing a video. The teacher pays special attention to the parts of the video and how we can significantly change the appearance with small changes to the settings. The students also determine the rules for creating a video with the help of the teacher.

Explore (70 min)

Students are divided into three groups based on their age:

- **Ages 10-11 (Basic video)**

- students insert recorded videos into the video creation program
- video clips are inserted into the sequences of a new video clip
- arrange transitions between individual sequences
- insert background music
- combine all sequences into one whole
- export the video work
- publish a video work on social networks



- **Ages 12-13 (Standard video)**

- students record short video clips of exercises that are necessary to improve spine health
- students insert recorded videos into the video creation program
- video clips are inserted into the sequences of a new video clip
- arrange transitions between individual sequences
- insert background music
- combine all sequences into one whole
- export the video work
- publish a video work on social networks particular work

- **Ages 13-14 (Advanced video)**

- students record short video clips of exercises that are necessary to improve spine health
- students process recorded video works
- students insert recorded videos into the video creation program
- video clips are inserted into the sequences of a new video clip
- arrange transitions between individual sequences
- add textual parts of the video work - insert background music
- arrange the musical background
- combine all sequences into one whole
- export the video work
- publish a video work on social networks

Evaluate (10 min)

The teacher talks to the students about how satisfied they are with the finished work. They check whether all the videos follow the rules that were set in advance.

Lesson Developer

Name: Adriana Mihalić Šebelja

Organization: OŠ Bakar



Tips for age group differentiation (for older/younger kids than indicated in the lesson)

Younger students (ages 12-13) will pay special attention to the parts of the video and how small changes in settings can significantly change the look. Students in this age group set the rules for creating the video.

Older students (ages 13-14) they record video clips and process them, insert them into a video, join new video sequences, organize transitions between sequences and fill the video work with music.

To which SDG(s) does the lesson relate most



SDG 5: Gender Equality

In this lesson everyone is equal. Both male and female students can actively and happily work without any disadvantages.

What Inclusivity and Accessibility measures can or should the teacher take for this lesson

Adaptation of materials: Use visual aids, large print, and clear instructions. Provide alternative formats for students with visual or reading disabilities.

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